Planning Commission Staff Report:
Zoning Text Amendment TXT2016-00244

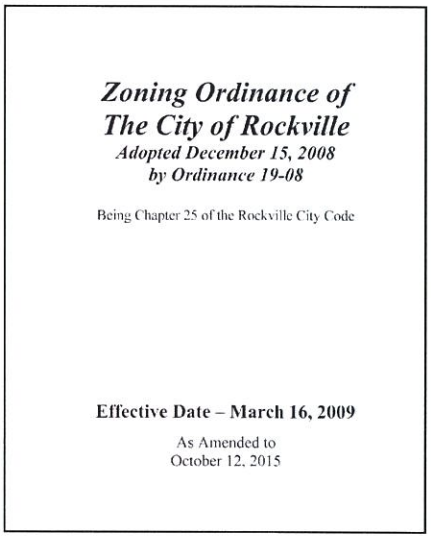
MEETING DATE: July 13, 2016

REPORT DATE: July 6, 2016

FROM: Deane Mellander, Zoning Administrator
Planning and Zoning Division
240.314.8224
dmellander@rockvillemd.gov

APPLICANT: Cellco Partnership, d/b/a Verizon Wireless

The applicant's request is to amend the code to allow for the installation of small cell antennas by providing a separate definition and excluding them from the provisions of Sec. 25.09.08.b, c, and d. A new Section 25.09.08.e would regulate these small cell antennas. There is no change proposed to the regulations for cell towers.


Zoning Ordinance of
The City of Rockville
Adopted December 15, 2008
by Ordinance 19-08

Being Chapter 25 of the Rockville City Code

Effective Date – March 16, 2009

As Amended to
October 12, 2015

FILING DATE: February 3, 2016

RECOMMENDATION: Staff recommends that the proposed text amendment be approved with revisions as shown on Exhibit 2.

EXECUTIVE SUMMARY: The applicant's proposed amendment would define a small cell antenna with a maximum size of two feet by 4½ feet. These small units would be permitted in any zone if mounted on a building or structure at least 15 feet tall. A new subsection, 25.09.08.e provides regulations on the installation of these units which would require only building and/or electrical permits. The proposed language excludes mounting of the antennas on any single family dwelling or any associated accessory structures.

The staff is proposing revisions to clarify that the antennas must be at least 15 feet off the ground (25 feet in residential areas); allow the antennas only on existing nonresidential buildings or structures in residential zones; limit the ground coverage for equipment at any one site; and delete the separate waiver provision for antenna size.

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APPLICANT'S PROPOSAL

The applicant has submitted a cover letter along with the text amendment application setting forth their reasoning for the proposed amendments (Exhibit 1). The draft amendment as submitted by the applicant includes much of the text of Section 25.09.08 that is not proposed to be revised. The staff has therefore reformatted the text in accordance with the City's standard text amendment format for ease of presentation as Exhibit 2. Exhibit 2 includes the recommended revisions proposed by the staff. Exhibit 3 is a submittal from the applicant providing additional data on how the small cell antennas function.

Briefly, the applicant proposes the following:

- Add a definition for small cell antennas with a maximum size of 2 feet by 4 ½ feet;
- Change the allowable size of panel antennas associated with macro sites from six to eight feet tall;
- Allow the installation of small cell antennas on buildings or structures with a minimum height of 15 feet from ground level via building and/or electrical permit; and
- Allow the Board of Appeals to grant minor waivers to the size of the antennas.
- No changes are proposed for cell tower or related macro cell site regulations

PROCESS AND PROCEDURE

The Commission initially considered this proposal at their meeting on May 11. At the meeting the Commission heard a presentation from the applicant and interested citizens. After discussion the Commission voted to table the matter. The item was brought back for further consideration at the meeting on June 22. At that meeting the staff presented additional revisions to the proposed text amendment, which the applicant found acceptable. Citizen testimony was also taken. After further discussion and deliberation, the Commission directed the staff to confer further with the applicant and the City's technical consultant on further revisions to the provisions for small cell antennas in the residential zones.

RECOMMENDATION

Based on the discussions with the Commission at the June 22 meeting, the staff has expanded on the regulations for these antennas in the residential zones, as shown on Exhibit 2. The staff recommends that the proposed text amendment be approved with the recommended revisions as follows:

- Prohibit the mounting of these units on single family attached and townhouse dwellings in addition to the proposed restriction on single family detached and semi-detached units in all zones, including mixed-use and planned development zones.

- In the single dwelling unit residential zones and residential medium density (RMD) zones, the antennas would only be allowed to be mounted on existing buildings or

structures that are either multiple unit dwellings or nonresidential buildings, and not single unit dwellings or on any structures associated with such dwelling units.

- The language has been clarified to ensure that the antenna itself must be located at least 15 feet off the ground, not just attached to structure that is greater than 15 feet in height. In the residential zones, the antennas must be installed at least 25 feet off the ground. In the single unit detached residential zones, a waiver provision has been included that can allow heights to be lowered to no less than 15 feet if it can be demonstrated that the greater height imposes an undue hardship or has the effect of prohibiting wireless services. This waiver does not allow for larger antennas.

- The ground area for support equipment has been clarified that it is limited to 12 square feet at any one site. Should there be an instance where there is more than one carrier on the same support structure, they would not each get 12 square feet.

- The equipment enclosure is limited to dimensions of 2 feet by 3 feet by 5 feet tall, reduced from 6 feet by 6 feet by 5 feet tall.

- In the residential zones (R and RMD zones), the antennas are limited to dimensions of 2 feet by 2 feet by 3 feet tall.

- Small cell antenna installations must be separated by at least 500 feet. A waiver may be requested to reduce this separation if compliance would impose and undue hardship, have the effect of prohibiting wireless service, or result in unreasonable discrimination among providers of equivalent services.

- Retain the provision, similar to the current provision in Section 25.09.08.d.7, requiring removal of all equipment if the site ceases operation.

- Retain the language requiring the units to be consistent with the color and architectural treatment of the building or structure to which the antenna is attached.

- Eliminate the separate waiver provision for increasing the size of small cell antennas and instead allow for a waiver of the antenna height and separation in the residential zones.

In addition to these provisions, staff is also recommending that a hierarchy of suitable locations be established in the residential zones. This provision is similar to the existing language in Section 25.09.08.b.2 for macro antenna sites. The locations, in order of preference, would be:

- Mounting on an existing nonresidential structure;

- Flush mounted on an existing nonresidential building;

- Mounted on the roof of a nonresidential building;

- Mounted on the roof or flush mounted on a multi-family building; and

- Mounted on a structure in the public right-of-way.

BACKGROUND

The Mayor and Council adopted text amendment TXT2001-00191 in August, 2001 for the purpose of providing a comprehensive set of regulations for wireless telecommunications facilities. This language is now incorporated as Section 25.09.08, "Wireless Communication Facility", in the current zoning ordinance. The thrust of this section is to regulate the location and installation of what are referred to by the applicant as macro antenna sites. These are typical multi-antenna installations mounted on monopole towers, lattice towers, or on the sides or roofs of buildings. Wireless facilities mounted on a new free-standing structure, i.e., a monopole or lattice tower, are required to obtain a special exception from the Board of Appeals. Facilities located on an existing building or structure are permitted by right subject to the provisions of Sec. 25.09.08.b.

These macro sites, which usually consist of three large panel antennas facing in different directions for each carrier, generally provide wireless service coverage for a radius of about 2 to 4 miles. The spacing between the macro antenna locations is dependent on several factors, including density of traffic and intervening trees or structures than can attenuate the signal strength. In dense urban areas, there can be gaps in service because of the height and density of the built environment.

Under the current provisions for wireless communications facilities in Section 25.09.08 of the Zoning Ordinance, panel antennas, which may be up to two feet in width and six feet in height, may be mounted by permit on existing buildings or structures that are at least 35 feet in height in nonresidential zones, and 50 feet in height on a multi-family residential building. Antennas may also be located on a free-standing structure, i.e., a monopole or other antenna support structure if the structure receives approval of a special exception by the Board of Appeals. In addition, if a free-standing structure is proposed to be more than 50 feet tall in a residential zone or within 500 feet of a residential zone, or more than 199 feet tall in a nonresidential zone, the Mayor and Council must grant a waiver of the height restrictions.

The intent of the proposed amendment is to allow the installation of small cell wireless antennas where the carrier deems them necessary to provide reliable cell service. These antennas are much smaller than the typical tower mounted cell antennas. Normally, only one antenna is needed. The text amendment as submitted proposes to define them as being no larger than 2 feet wide by 4½ feet tall in size. This is consistent with the regulations recently adopted by the City of Gaithersburg. The County currently restricts the antenna size to 2 feet by 3 feet. In addition, staff proposes language to clarify that canister installations, which contain three antennas, be included in the definition with a limit of four and a half cubic feet. This volumetric measure is equivalent to the four and a half foot tall antennas proposed. The staff has consulted with the County's technical consultant and he notes that the recent trend has been for small cell antennas to go up to four feet tall. The staff is therefore willing to support the applicant's proposed antenna size.

The amendment as proposed would allow these antennas to be located on any structure with a minimum height of 15 feet, while the current provisions require antennas to be mounted only on structures that are a minimum of 35 feet tall. The proposed text would not allow the small cell antennas to be mounted on single family or semi-detached dwellings or on any associated accessory structures. Based on the discussions at the previous Planning Commission meeting, the staff is recommending that the text be amended to clarify that the antenna itself must be located at least 15 feet off the ground, instead of having just the support structure be 15 feet tall.

The following table provides a comparison between the current regulations and the proposed revisions, based on the staff recommendations shown in Exhibit 2:

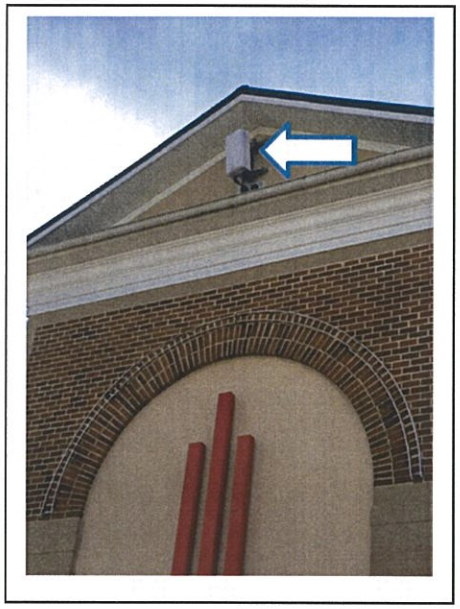
Regulated Item	**Current Requirement**	**Proposed Revision**
Panel Antennas	2 feet wide x 6 feet tall	2 feet wide x 8 feet tall
Small Cell Antennas	N/A	2 feet wide x 4.5 feet tall
Minimum Support Structure Height/Antenna Height	35 feet for all antennas	15 feet height for small cell antenna; 25 feet in residential zones 35 feet for all other antennas
Equipment Enclosures	560 gross sq. ft. x 12 feet tall	12 gross sq. ft. x 5 feet tall for small cell antenna at one site Panel or whip antenna, no change
Support Structure Location	Nonresidential zones – permitted Residential zones or within 500 feet of residential zones – Special Exception	Small cell antenna – permitted in all zones; restricted to nonresidential buildings or structures in residential zones; others same
Site Separation	N/A	500 feet for small cell antennas in residential zones; waiver may be requested

The applicant has provided some additional information on how these small cells operate (Exhibit 3). Fundamentally, the small cells act to supplement the coverage of the major tower-

mounted antennas for high-traffic areas or act as a gap filler where the coverage requirements don't dictate the need for a new macro site.

The staff notes that both Montgomery County and the City of Gaithersburg have adopted text amendments to regulate small cell antennas in a similar manner to what is proposed. The County has limited small cell antennas limited to two feet wide by three feet tall. In Gaithersburg, the size limit is 2.5 feet wide by four feet tall. Gaithersburg also requires that any small cell antenna located on a multi-family building be at least 20 feet off the ground, with the minimum being 15 feet for any non-residential or mixed use structure. Under both the County and Gaithersburg regulations, small cell antennas are allowed in all zoning districts.

The applicant has supplied some photos of sample installations in the nearby region:



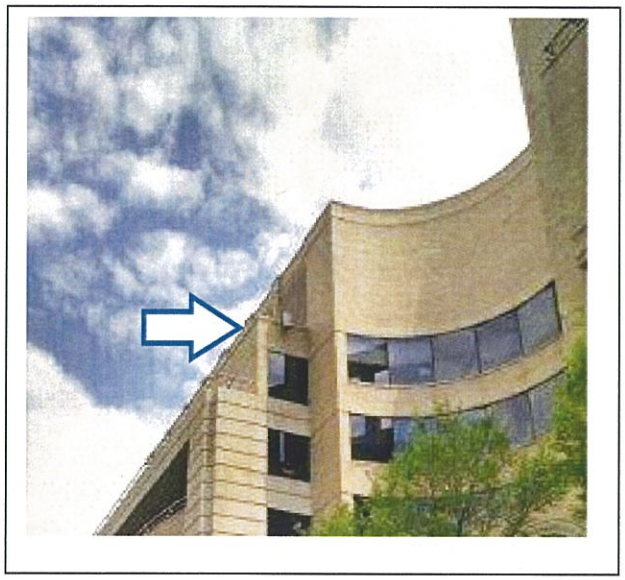
King Farm Village Center

Red Mill Center, Derwood

Antenna @ Top

Equipment Box @ Base

Montgomery County



Washington, DC

ANALYSIS

The small cell antennas are primarily intended to supplement the service from the macro sites where there is high usage and potential service gaps. As noted in the proposed definition, these antennas are considerably smaller than the typical six to eight foot tall macro site antennas. The applicant's proposed definition limits these units to a maximum of two feet wide by 4.5 feet tall or the volumetric equivalent for a cylinder installation.

The staff has consulted with the wireless specialist for Montgomery County and their technical consultant. Based on current practice, it does appear that the technology has moved towards using larger antennas in some circumstances. The dimensions requested by the applicant of two feet by four and a half feet are consistent with this advance in the technology and the staff is therefore willing to support the applicant's request.

These small cell antennas typically operate at low power, considerably less than that from a typical macro cell antenna. Emission levels decline greatly with distance from the antenna, so the power at ground level is a very small fraction of the power emitted directly in front of the antenna. The Federal Communications Commission (FCC) has stated:

> Radio frequency emissions from antennas used for cellular and PCS transmissions result in exposure levels on the ground that are typically thousands of times below safety limits. These safety limits were adopted by the FCC based on the recommendations of expert organizations and endorsed by agencies of the Federal Government responsible for health and safety. Therefore, there is no reason to believe that such towers could constitute a potential health hazard to nearby residents or students.

Given the FCC regulations, the legal community has addressed the location issues with these guidelines under which an approving authority may consider denial of an antenna site:

- They cannot base a denial upon the potential adverse health impact of the RF emissions from the cell tower or facility, because that would violate the provisions of the Telecommunications Act of 1996;

- The denial of such an application must be based upon a legally recognizable basis; and

- They must create a record which clearly sets forth that the denial was premised upon the legally recognizable basis, and the evidentiary grounds which lead them to reach their decision.

Proposed Revisions

The first revision proposed is to create a new definition in Article 3 for a Small Cell Antenna. The definition sets the size limits for these types of units. As noted above, the staff can accept the proposed antenna dimensions. The current definition for Wireless Communication Facility is proposed to be modified to indicate that these facilities are remotely operated. This is essentially a clarification indicating that these sites are not routinely staffed. In addition, satellite earth stations two meters or less in diameter, which include private dishes for home TV reception, are excluded from this definition consistent with FCC regulations.

Sections 25.09.08.b, c, and d are proposed to be modified to exclude the small cell antenna from the provisions previously applicable to all antenna sites. In addition, Section 25.09.08.b.4 is proposed to be modified to increase the panel antenna size for macro sites from six feet to eight feet. This reflects recent technological trends in the industry and will reduce the need for wireless providers to request a waiver from the Board of Appeals for increased antenna size for panel antennas. Several waiver requests for the larger antennas have been approved by the Board of Appeals in the past couple of years.

A new section 25.09.08.e is proposed to be added to the ordinance, specifically to regulate the small cell antennas. These antennas would be permitted on any new or existing structure at a height of least 15 feet in height in all zones, subject to limitations. This could be a building, street light pole, utility pole or an existing antenna structure. If an existing structure needs to be replaced in order to accommodate the facility structurally (such as a light pole), the replacement structure cannot be more than 120 percent or a maximum of 10 feet taller than the existing structure. The equipment cabinet may be located in any convenient location and cannot exceed 12 square feet in footprint or be more than five feet tall.

In the one-family residential zones, the staff is recommending that the height of the antenna installation be at least 25 feet. A waiver provision is provided that allows the Board of Appeals to consider lower heights down to no less than 15 feet where the applicant can demonstrate undue hardship or where the greater height would have the effect of prohibiting the provision

of wireless service. This is similar to the existing waiver language in Section 25.09.08.e.3.a and does not allow for a waiver of the antenna size as proposed by the applicant in the initial submission. Staff is recommending that this waiver be located in subsection f, "Waivers Permitted", in place of the applicant's proposed antenna size waiver proposal.

The staff is recommending that the language be revised to limit the ground coverage to 12 square feet at any one site. Should there be an occasion where there is more than one carrier on the same support structure, the ground coverage is still limited to 12 square feet, rather than 12 square feet for each antenna. We do note that in most cases where there is a pole-mounted antenna, the equipment box is attached to the pole, rather than on the ground. Height would still be limited to five feet. The staff is recommending that the equipment box dimensions be no greater than two feet by three feet by five feet tall in the residential zones.

The staff also recommends adding language requiring the removal of equipment if the site ceases to function. This is consistent with the current language in Section 25.09.08.d.7.

The language proposed by the applicant prohibits locating small cell antennas on single-family or two-family dwellings or on any accessory structure associated with these single family units. The staff is recommending that this prohibition be extended to include single family attached and townhouse dwellings in residential zones as well. In addition, this prohibition is also recommended to include single family detached, attached and townhouse units in the mixed use zones.

The staff recommends that in the residential zones the small cell antennas can only be located on an existing nonresidential building or structure. School buildings, churches, nursing homes and similar uses would be possible candidates. This would also include allowing antennas on existing street light poles or utility poles which are typically in the public right-of-way. In the latest revision, as noted earlier, the staff is recommending a hierarchy of locations where the antennas could be located in the residential zones, as noted above. In decreasing order of preference, this hierarchy would be as follows:

- Mounted on nonresidential accessory structures, such as utility poles, flag poles, or existing antenna support structures;
- Flush mounted on an existing nonresidential building;
- Mounted on the roof of a nonresidential building;
- Mounted on the roof or flush mounted on a multi-family building;
- Mounted on a structure, such as a utility pole or light pole, in the public right-of-way.

In the staff's view, the installation of new structures for the sole purpose of installing an antenna is not warranted in the residential neighborhoods, and should not be permitted. The revised language is shown with double underlines on Exhibit 2. The staff also recommends adding language for the planned development zones making it clear that in cases where small cell antennas are proposed, the designated equivalent zone applies for determining how the installations will be regulated.

The following table summarizes how and where these antennas could be located:

Antenna Location Criteria				
Zone Type		Existing Residential Buildings & Structures	Existing Nonresidential Buildings and Structures	New Support Structures
Residential Single Family	R-400	No	Yes	No
	R-200	No	Yes	No
	R-150	No	Yes	No
	R-90	No	Yes	No
	R-75	No	Yes	No
	R-60	No	Yes	No
	R-40	No	Yes	No
Townhouse and Multi-family	RMD-10	No	Yes	No
	RMD-15	Multi-family only	Yes	No
	RMD-25	Multi-family only	Yes	No
Mixed Use		Multi-family only	Yes	Yes
Industrial		Yes	Yes	Yes
Planned Development		Regulated by Designated Equivalent Zone		

Based on the Commission's discussion at the June 22 meeting, the staff recommends adding a provision limiting the installations in the residential zones to a separation of at least 500 feet so as to limit the visual impact should more than one set of antennas be proposed at the same location. Within the proposed waiver language is a provision that allows the Board of Appeals to reduce this requirement if it is demonstrated that the limitation would have the effect of prohibiting the provision of wireless service, create an undue hardship or result in unreasonable discrimination among service providers.

The staff also proposes to add a new subsection (h) which would require the antennas and support equipment to closely match the color and architectural treatment of the support building or structure to which the antenna is attached. This is consistent with the current regulations in subsection b.2.(a) for macro units mounted on existing structures.

Finally, the applicant's submitted amendment proposes a new Sec. 25.09.08.f.3(c) to allow the Board of Appeals to consider a waiver of the size restrictions for small cell antennas where it finds that the size increase is the minimum needed, will be integrated into the support structure and limits the visual impact. The staff recommends that this proposed language be deleted. Given the flexibility for locating the small cell antennas in many additional locations as

proposed by the amendment and allowing the antenna size up to four and a half feet, there should be no need for waivers to the size of the antennas. As noted above, the staff recommends that this language be replaced with a waiver provision for the height and separation of the antennas in the residential zones.

Exhibit 2 includes all of the text revisions recommended by the staff. Strike-throughs indicate proposed language to be deleted, and double underlines indicate the staff recommended revisions.

Other Code Revisions

Since there is the possibility of mounting these small cell units on street light poles or other appurtenances in the public right-of-way, the staff recommends that Chapter 21 of the City Code, the "Road Code" also be amended. The proposal is to amend Sec. 21-41(b) to make a specific reference to wireless facilities so as to make it clear that these units must obtain a permit from the Department of Public Works for any such work. The proposed language would be inserted as follows:

(b) No person, including any utility corporation, shall work within a City public right-of-way or easement in the corporate limits of the City for the purpose of installing, maintaining, or connecting gas, electric power, telephone lines, telecommunication lines, small cell antennas, water or sewer mains, CATV wires, or for any other purpose, without first applying for an obtaining a permit therefor from the City.

This proposed Code amendment would be presented to the Mayor and Council as an ordinance for approval if the text amendment is adopted by the Mayor and Council.

Public Comment

As of July 1, we have received 18 submittals to the record. They are included in the Exhibits as shown below.

EXHIBITS

1. **Text Amendment Application and Cover Letter**
2. **Text Amendment Reformatted with Staff Revisions**
3. **Supplemental Applicant Submittal**
4. **Initial Comments from West End Citizen's Association**
5. **Testimony from Noreen Bryan**
6. **West End Citizen's Association Public Meeting Testimony**
7. **Nadia Azumi Public Meeting Testimony**
8. **Letter from Ronald Powell**
9. **Applicant Public Meeting Submittal**
10. **Letter from Extenet**

11. Letter from T-Mobile
12. Letter from Larry Giammo
13. Letter from Laura Rhodes
14. Letter from Michael Higgs
15. Letter from Andrew Kass
16. Additional comments from Andrew Kass
17. Letter from David Poland
18. Letter from Caren Ginsberg

Exhibits Submitted to the Record

TXT2016-00244

Submittal & Date	Summary of Comments
Ex. 1 – Applicant's application and cover letter 2-3-16	Proposes the text amendment to define small cell antennas and allow them in all zones. Support structure must be 15 feet tall. Antennas not permitted on one-family detached or semi-detached dwellings.
Ex. 2 – Staff recommended revisions to the text 7-6-16	Proposes revisions to require the antenna be 15 feet off the ground; only allowed on nonresidential building or structures in residential zones; includes a hierarchy of preferred locations in residential areas. In residential areas antennas must be 25 feet off the ground; ground area for equipment limited to12 square feet; limit antenna size to 2 x 3 feet; no closer than 500 feet to an existing small cell antenna; waiver may be granted by BOA to lower height down to 15 feet and reduce separation distance.
Ex. 3 – Letter from Verizon with added details 2-18-16	Provides additional details on the operation of small cell antennas
Ex. 4 – Letter from Noreen Bryan 4-10-16	Do not allow waivers; restrict the density of installations; no specifications on power emanations; 15 feet is too low; delay consideration and notify all city households
Ex. 5 – Testimony from Noreen Bryan 5-11-16	Concern regarding clarity of proposed text; lack of notification to citizens; concern regarding effects of radiation
Ex. 6 – Letter to Mayor and Council 5-5-16	Reiterating concerns noted in Ex. 5.
Ex. 7 – Testimony from Nadia Azumi 5-11-16	Concern regarding notice; concern regarding exposure to radio radiation; concern about possible tree removal.
Ex. 8 – Letter from Ronald Powell in opposition 5-8-16	Concerns about effects on public health from exposure to radio radiation; no new installations should be allowed.
Ex. 9 – Letter from M. Gregg Diamond, atty. For applicant 5-10-16	Response to staff recommended revisions – keep the 4.5' antenna height; add a provision allowing installation in utility easements;
Ex. 10 – Letter from Extenet 6-15-16	Supports the text amendment
Ex. 11 – Letter from T-Mobile	Supports the text amendment
Ex. 12 – E-mail from Larry Giammo 6-21-16	Antennas too large; no waiver, or limit the amount of waiver; antennas should be 25 feet from the ground in residential areas; ground area for equipment at 36 square feet is way too large; 36 square feet too large for pole-mounted equipment; new poles in neighborhoods would be allowed; no limit on number of antennas in same location; no requirement to remove equipment no longer functioning; allows new poles in public right-of-way; need to protect the residents.
Ex. 13 – E-mail from Laura Rhodes 6-22-16	Concern about the unsightliness of the proposed installations.
Ex. 14 – E-mail from Michael Higgs 6-27-16	Work with staff to develop "common sense" zoning regulations for the I-270 Technology Corridor
Ex. 15 – E-mail from Andrew Kass in response to Mr. Higgs	Consider a tier system for location with major arterials first and residential areas last; provide a public process; require a fee to city for any installation in public right-of-way

Ex. 16 – E-mail additional response from Mr. Kass 6-27-16	Need to consider health concerns; FCC may be relying on bad science
Ex. 17 – E-mail response to Mrs. Higgs and Kass from David Poland 6-27-16	Use of public space should be justly compensated
Ex. 18 – E-mail from Caren Ginsberg 6-26-16	Opposes the amendment, especially in residential neighborhoods. No demonstrated need. Concern about esthetics, the environment and health. Will effect enjoyment of the neighborhood.

Application for
Text Amendment

TXT
2/09

City of Rockville
Department of Community Planning and Development Services

111 Maryland Avenue, Rockville, Maryland 20850
Phone: 240-314-8200 • **Fax:** 240-314-8210 • **E-mail:** Cpds@rockvillemd.gov • **Web site:** www.rockvillemd.gov

Application Information:

Is this an Amendment to Existing Text ? ☑ YES ☐ NO

Add New Zone Classes: ☐ YES ☑ NO **Add New Uses:** ☑ YES ☐ NO

Number of new uses: 1 Ordinance # 25.03.02 and 25.09.08 (see attached)

2016 FEB -3 AM 10:0

CITY CLERK'S OFFICE
ROCKVILLE, MD

Please Print Clearly or Type

Property Address information N/A

Project Description N/A

Applicant Information:
Please supply Name, Address, Phone Number and E-mail Address

Applicant Cellco Partnership d/b/a Verizon Wireless, 7600 Montpelier Road, 2nd Floor - Network, Laurel, MD 20723, Attn: David Reinauer, Real Estate Specialist - Network, david.reinauer@verizonwireless.com

Property Owner N/A

Architect N/A

Engineer N/A

Attorney Cathy G. Borten, Law Offices of M. Gregg Diamond, P.C., 137 Kent Oaks Way, Gaithersburg, MD 20878 240-246-1624

STAFF USE ONLY

Application Acceptance:
Application #
Date Accepted
Staff Contact

OR

Application Intake:
Date Received
Reviewed by
Date of Checklist Review
Deemed Complete: Yes ☐ No ☐

Application is hereby made with the Rockville Mayor and Council for Approval of a change in the text of the Zoning and Planning Ordinance of Rockville, Maryland.

Page _____ Article 25.03.02 Section _____

FROM: Which reads as follows ~~See attached~~

TO: Reads as follows ~~See attached~~

By: _____
(Signature of Applicant)

Subscribed and sworn before this _____ day of _____, 20____

My Commission Expires _____
Notary Public

The following documents are furnished as part of the application:

☑ A Complete Application

☑ Filing Fee

Comments on Submittal: (For Staff Use Only)

LAW OFFICES OF M. GREGG DIAMOND, P.C.
ATTORNEYS AT LAW
137 KENT OAKS WAY
GAITHERSBURG, MARYLAND 20878-5609
Phone: (240) 246-1624
Fax: (240) 252-6238

M. GREGG DIAMOND*
CATHY G. BORTEN *
ANDREA ZIZZI +

*PRACTICING IN MARYLAND AND THE DISTRICT OF COLUMBIA
+PRACTICING IN VIRGINIA AND THE DISTRICT OF COLUMBIA

WRITER's DIRECT DIAL NUMBER
(240) 246-1624
EMAIL: Cathy.Borten@mgd-law.com

February 3, 2016

Mayor and City Council of Rockville
City of Rockville Planning Commission
111 Maryland Avenue
Rockville, MD 20850

By Hand Delivery

Re: Zoning Text Amendment
Chapter 25, Article 3, Section 25.03.02, entitled "Definitions" and
Chapter 25, Article 9, Section 25.09.08, entitled "Wireless Communication Facility"

To the Mayor, City Council, and Planning Commission:

We represent Cellco Partnership, d/b/a Verizon Wireless, in connection with the proposed Zoning Text Amendment of Chapter 25, Articles 3 and 9, as the amendments relate to the installation of small cell wireless facilities. The City of Rockville Department of Community Planning and Development Services has proposed additional amendments to Chapter 25; the following will address only those proposed edits relating to small cell facilities. On behalf of Verizon Wireless, we respectfully request that the Mayor and Council and Planning Commission consider the following proposed amendments to existing language in the Zoning Ordinance in order to provide clarity, consistency and flexibility going forward. The suggested modifications are attached in a red line to the sponsored text included with this letter, and are explained below.

Section 25.03.02 – Definitions

The first proposed modification is to add a definition to the above referenced section to address "Antenna, small cell." The purpose of this definition is to distinguish small cell sites, which typically include one or two smaller-sized antennas, from other significantly larger antennas used in full (known as "macro") cell sites that normally include nine to fifteen taller-sized antennas. The proposed new definition addresses the smaller size of small cell antennas, while allowing for a waiver of the standard size by the Board of Appeals. The intent here is to

allow these smaller antennas to be installed with a minimum of administrative resources, including providing some flexibility in the size as the technology may go through various iterations going forward. The goal of a small cell installation is to be able to provide several smaller antennas, at lower heights, to target areas of high volumes in order to increase capacity and network reliability in those areas, and off load data capacity from nearby macro sites that are over capacity. As drafted, this new definition allows the small cell technology to be utilized to its maximum potential in the City, with the minimum amount of administrative resources.

Section 25.09.08 – Wireless Communication Facility

As proposed, existing language has been modified to exclude the small cell facility from certain inapplicable requirements. Specifically, the small cell facility has been excepted out from Section 25.09.08 b (regarding Wireless Communication Facilities Attached to Existing Structures), Section 25.09.08 c (regarding Wireless Communication Facilities Located on Ground-Mounted Antenna Support Structures), and, Section 25.09.08 d (regarding Equipment Enclosures Located at Ground Level Standards.

An entirely new Section 25.09.08 e is proposed to address the small cell antenna technology specifically. This language establishes that antennas meeting the definition of Antenna, small cell in Section 25.03.02 are permitted in all zones. Antennas, small cell may be installed on any new or existing building or structure that is at least 15 feet in height. This height minimum allows the small cell antennas to be installed in targeted areas in a manner that allows for greater capacity in those heavily congested areas where people are actively using the network.

As noted above, the ordinance would allow carriers to install a small cell facility meeting the height requirement on new or existing structures, such as structurally capable new or pre-existing light poles, or existing building facades, rooftops, etc. This new section also accounts for installing small cell facilities on structures that require replacement in order to handle the increased load from the antennas and equipment. This language recognizes that there may be a certain structure, such as a light pole, that can remain a light pole after the antennas are installed, but that needs to be structurally reinforced in order to accommodate both the light standard and the antennas.

The new language addresses equipment dimensions, and includes a prohibition against small cell installations on single unit detached or semi-detached dwelling, or on any accessory building or structure associated with the dwelling. This prohibition provides the City a measure of protection by ensuring that the small cell installations remain in heavily trafficked multi-family or commercial areas rather than in single family areas.

Finally, Section 25.09.08 f 3.a (f being a new subsection number/letter with the insertion of the new language in subsection e explained above) allows the Board of Appeals to grant minor size increases for small cell antennas upon showing that compliance with this Section would impose an undue hardship or prohibit or have the effect of prohibiting the provision of wireless communication services or would result in unreasonable discrimination among providers of functionally equivalent wireless communication services. As noted above, the waiver allows the City and its residents the benefit of the most current wireless technology, using the least amount of administrative resources possible.

In conclusion, this text amendment is a reasonable supplement to the City of Rockville Zoning Code. The text amendment provides, inter alia, a focus on small cell wireless development by defining these unique types of installations separate from "macro" sites and issues clear guidance on the City's zoning requirements. This will result with the City of Rockville having a modern, progressive telecommunications zoning code that will allow it to encourage responsible wireless development of small cell technology.

Sincerely,

Cathy G. Borten
Counsel for Cellco Partnership d/b/a
Verizon Wireless

cc: David Reinauer, Verizon Wireless
Brian Stover, Verizon Wireless
Michael Weiland, Network Building + Consulting, LLC
Stephanie Petway, Network Building + Consulting, LLC

PROPOSED ZONING TEXT AMENDMENT

Chapter 25, Article 3, Section 25.03.02, entitled "Definitions" and Chapter 25, Article 9, Section 25.09.08, entitled "Wireless Communication Facility (proposed amendments shown in underline and ~~strike through~~)

Chapter 25, Article 3, Section 25.03.02 – Definitions

Antenna - Any structure or device used to collect, receive, transmit, or radiate electromagnetic waves, including both directional antennae (such as panels, microwave dishes, satellite earth station antennae over two (2) meters in diameter) and omni-directional antennae (such as whips). This term does not include antennae two (2) meters or less in diameter, and antennae regulated by 47 C.F.R. Section 1.4000, as amended.

Antenna, small cell – A wireless communication service antenna, whether omni-directional or panel antenna, with standard dimensions equal or less than four and a half (4 1/2) feet in height and two (2) feet in width, used to collect, receive, transmit, or radiate electromagnetic waves. The standard dimensions may be modified by the Board of Appeals consistent with Section 25.09.08.f.3. of this ordinance.

Antenna Support Structure - A structure designed for the primary purpose of supporting one (1) or more antennae (including telescoping mast, tower, monopole, tethered blimp, or other support structure). The term includes structures located on buildings or other structures, ground-mounted, or tethered.

* * *

Wireless Communication Facility - A remotely operated facility for the transmission and/or reception of wireless communication services, consisting of one (1) or more antennas, but excluding satellite earth station antennae two (2) meters or less in diameter. Such a facility also may include transmission cables, related equipment enclosures, and, in some cases, a freestanding ground-mounted antenna support structure to achieve the necessary elevation.

Wireless Communication Service - Those services defined in the same manner as in Title 47, U.S. Code, Section 332(c)(7)(c), as they may be amended from time to time, and such other services that consist of the transmission and/or reception of information by electromagnetic wave, digital signals, broadcast television signals, analog signals, radio frequencies, or other communication signals.

* * *

Chapter 25, Article 9, Section 25.09.08 – Wireless Communication Facility

a. *Purpose* – The purpose of this Section is to provide a uniform and comprehensive set of standards for the development and installation of wireless communication facilities, related structures, and equipment.

1. The regulations and requirements contained herein are intended to:

(a) Regulate the placement, construction, and modification of wireless communication facilities in order to protect the health, safety, and welfare of the public and the aesthetic quality of the City; and

(b) Encourage managed development of wireless communication infrastructure, while at the same time not unreasonably interfering with the development of the competitive wireless communication marketplace in the City.

2. This section is intended to promote the following objectives:

(a) To minimize the total number of wireless communication facilities and antenna support structures throughout the community through siting standards;

(b) To provide for the appropriate location and development of wireless communication facilities and related structures and equipment within the City, and, to the extent possible, minimize potential adverse impacts on the community;

(c) To minimize adverse visual impacts of wireless communication facilities and related structures and equipment through careful design, siting, landscape screening, and innovative camouflaging techniques, such as stealth technology, and utilizing current and future technologies;

(d) To promote and encourage shared use/collocation of antenna support structures;

(e) To maintain and preserve the existing residential character of the City and its neighborhoods and promote the creation of a convenient, attractive, and harmonious community;

(f) To promote the safety of citizens and avoid the risk of damage to adjacent properties by ensuring that wireless communication facilities and related structures and equipment are properly designed, constructed, located, modified, maintained, and removed;

(g) To ensure that wireless communication facilities and related structures and equipment are compatible with surrounding land uses;

(h) To encourage: the location of antennas on existing buildings or other structures; collocation of new antennas on existing antenna support structures; camouflaged antenna support structures; and construction of antenna support structures with the ability to locate three (3) or more providers or users; and

(i) To maintain and ensure that a non-discriminatory, competitive, and broad range of high quality wireless communication services and high quality wireless communication infrastructure consistent with laws are available to the community.

b. *Wireless Communication Facilities Attached to Existing Structures* – Except for a facility utilizing a small cell antenna, ~~W~~wireless communication facilities attached to the roof or side of a building, or attached to an existing structure must comply with the following:

1. The building or other structure on which a wireless communication facility to be installed must be at least 35 feet in height if used for nonresidential purposes and 50 feet in height if used for multiple unit dwelling purposes. In a mixed-use development, the multiple unit dwelling standard applies. Except as provided in Section 25.09.08.e, wireless communication facilities are not permitted on any single unit detached dwelling or appurtenant accessory building or structure.

2. The antennas and antenna support structures must be located and designed to minimize visual impacts through various methods, including, but not limited to, the use of stealth technology. Antennas and antenna support structures must be installed according to the order of preference in Sections 25.09.08b.2.(a) through (d) below, with (a) being the preferred option. Use of a lower preference location is permitted only if an applicant provides detailed justification as to why higher preference locations are not suitable.

   (a) Antennas must be flush mounted on existing structures, or on either rooftop enclosures or the side of a building, and closely match the color and architectural treatment of the structure, enclosure, or building.

   (b) Antennas must be flush-mounted on expanded rooftop mechanical equipment enclosures, with the enclosures and antennas designed to be consistent with the architectural treatment and color of the building.

   (c) Antennas must be enclosed with screening that is consistent with the architectural treatment and color of the building or structure.

   (d) Antennas and support structures must be painted or otherwise treated to minimize their visibility.

3. Antennas and supporting structures are permitted to exceed the height of the building or structure to which they are attached by a maximum of 19 feet. The height above a

building must be measured from the finished roof elevation, and not from the roof of any equipment enclosure.

4. Antennas must comply with the following size standards:

   (a) Whip antennas must be no more than seven inches (7") in diameter; and

   (b) Panel antennas must be no more than two feet (2') wide and ~~six~~ eight feet (~~6~~ 8') long.

5. An equipment building or cabinet may be located on the roof of a building provided it and all other roof structures do not occupy, in the aggregate, more than 25 percent of the roof area.

6. When an antenna is located on a stadium light or utility pole, the total height of the antenna plus the pole or light must not exceed 125% of the average height of the lighting system at the stadium or run of poles within 500 feet of the pole on which the antenna is located.

c. *Wireless Communication Facilities Located on Ground-Mounted Antenna Support Structures*

1. *Scope* – This subsection applies to wireless communication facilities mounted on free-standing antenna structures except for a facility utilizing a small cell antenna.

   (a) *Special Exception* – Wireless communication facilities covered by this Section require the approval of a special exception in accordance with the applicable provisions of Article 15 of this Chapter.

   (b) *Additional Findings Required* – The following additional findings must be made for the granting of a special exception:

      i. The location selected is necessary for the public convenience and service and cannot be supplied with equivalent public convenience on a building or structure or collocated on an existing antenna support structure; and

      ii. For new antenna support structures to be located in a residential zone or within 500 feet of a residential zone, it must be demonstrated that a good faith effort has been made to locate the proposed antenna support structure in a nonresidential zone more than 500 feet from the residential zone, with adequate coverage and on an isolated site with minimal visual impact.

   (c) *Independent Consultant* - The City may hire an independent consultant to review evidence submitted by the applicant, and the applicant must reimburse the City for the reasonable cost of hiring and utilizing such a consultant.

2. *Development Standards*

(a) The maximum height of the facility, including antenna and other attachments, is 50 feet in a residential zone, or within 500 feet of a residential zone, and 199 feet in all other locations. Height must be measured vertically from the pre-disturbance ground level at the center of the support structure.

(b) Monopoles are the preferred type of freestanding antenna support structure.

(c) No commercial or promotional signs, banners, or similar devices or materials are permitted on antenna support structures.

(d) The ground-mounted antenna support structure must be located and designed in a manner that is harmonious with surrounding properties, to the extent practicable. Antenna support structures must be designed to blend into the surrounding environment through the use of color and camouflaging architectural treatment. When practicable, available stealth structure design techniques must be used.

(e) Wireless communication facilities must be located on City-owned property, if feasible.

(f) Antenna support structures must be set back one foot (1') for every foot of height of the structure, measured from the base of the structure to each adjoining property line or right of way.

(g) Lights are not permitted on antenna support structures unless they are required for aircraft warnings or other safety reasons, or to comply with applicable laws and regulations. If required, minimum lighting requirements must be applied, and strobe lights must be avoided unless specified by the Federal Aviation Administration or the Federal Communications Commission.

(h) Outdoor storage of equipment or items related to the wireless communication facility is prohibited on sites with antenna support structures.

(i) All antenna support structures erected as part of a wireless communication facility must be designed to accommodate collocation of additional wireless communication carriers. New antenna support structures of a height of 150 feet or more must be designed to accommodate collocation of a minimum of four (4) additional providers either upon initial construction or through future modification to the antenna support structure. Antenna support structures of less than 150 feet must be designed to accommodate collocation of a minimum of two (2) additional providers.

(j) Prior to construction, each applicant must provide certification from a registered structural engineer that the structure will meet pertinent design, construction, installation, and operation standards, including but not limited to the applicable standards of the Electronics Industries Association (EIA), the Telecommunications Industry Association (TIA), ANSI, and the BOCA Code in effect at the time of the building permit application.

(k) Upon completion of any sale or sublease of an antenna support structure, the owner of an antenna support structure must provide written notice to the City's Inspection Services Division.

(l) The owner of a ground-mounted antenna support structure, at the owner's expense, must remove antenna support structures when a wireless communication facility is not used for wireless purposes for a period 180 days in a 12-month period. The owner of a ground-mounted antenna support structure must immediately notify the City, in writing, of nonuse or abandonment of the structure upon its cessation as a wireless communication facility. Failure to remove an abandoned or unused ground-mounted antenna support structure will result in removal of the structure by the City at the expense of the owner.

(m) When a ground-mounted antenna support structure is removed by an owner, said owner must apply for a demolition permit to remove the tower. A condition of the demolition permit is to restore the site to the standards required by the building code in effect at the time, at no expense to the City.

d. *Equipment Enclosures Located at Ground Level Standards* – Except for a facility utilizing a small cell antenna, ~~E~~equipment enclosures located at ground level must comply with the following standards:

1. Each enclosure that contains the equipment of a single provider must not exceed 560 square feet of gross floor area and 12 feet in height; if more than one (1) provider is to be accommodated in an enclosure, a single enclosure must be constructed to accommodate the maximum number of providers that are required to collocate on the antenna support structure, up to a maximum of 1,500 square feet in area and 12 feet in height.

2. The enclosure must conform to the applicable setback standards for main structures in the zone in which the property is located; setback standards for accessory buildings and structures in Section 25.09.03 are not applicable to equipment enclosures.

3. The enclosure must be screened to provide year-round screening. This standard may be met by one (1) or a combination of the following: fencing, walls, landscaping, structures or topography which will block the view of the equipment shelter as much

as practicable from any street and/or adjacent properties. In areas of high visibility, fencing may be wrought iron, masonry, or other decorative fencing material.

4. Lighting associated with equipment structures must be directed so as to minimize any negative impact of such lighting on adjacent properties.

5. When constructed as a freestanding building, the design of the enclosure must be coordinated with the design of the existing main building on the same lot or, if there is no building on the lot, with the buildings on an adjoining lot, to the extent practicable. In addition, the enclosure must be constructed of non-reflective materials.

6. When attached to an existing building, the enclosure must be designed in a manner that is harmonious with the existing building and surrounding properties.

7. The equipment enclosure must be removed at the cost of the owner when the wireless communication facility is no longer being used by a wireless communication provider. Failure to remove abandoned equipment will result in removal by the City at the expense of the owner.

e. A wireless communications facility utilizing a small cell antenna is subject to the following provisions:

1. Antennas meeting the definition of Antenna, small cell in section 29.03.02 are permitted in all zones;

2. Location:

(a) A small cell antenna may be located on any new or existing building or structure at least 15 feet in height, measured from the existing grade;

(b) If a replacement structure is needed to support the proposed antenna, the height of the replacement structure cannot exceed the greater of 20 percent or ten (10) feet of the height of the existing structure it is intended to replace. The replacement structure must maintain the same primary function as the existing structure;

(c) The equipment to support the small cell antenna, whether located on the support structure, roof, or on the ground, cannot exceed 36 square feet of area and a maximum of five (5) feet in height;

(d) Small cell antennas and support equipment are not permitted to be attached to any single unit detached or semi-detached dwelling or any accessory building or structure associated with the dwelling.

f. *Waivers Permitted*

1. *Regulated Satellite Earth Station Antennas*

(a) Any person or entity seeking to install or erect a satellite earth station antenna subject to this Section, other than an antenna specified in subsection 25.09.08.e.1.(a)ii below, may apply for a waiver from one (1) or more of the provisions of this Section 25.09.08., and the Board of Appeals may grant such a waiver pursuant to applicable procedures and standards if it is shown that:

i. The provision(s) of Section 25.09.08 at issue materially limit or inhibit the transmission or reception of satellite signals at the waiver applicant's property or the provision(s) at issue impose more than a minimal cost on the waiver applicant; and

ii. The waiver, if granted, would not result in any noncompliance with applicable laws, regulations, and codes (including, but not limited to, safety and building codes); and

iii. The waiver sought is the minimum waiver necessary to permit the reception or transmission of satellite signals at the waiver applicant's property.

(b) The Board of Appeals is authorized to grant a complete or partial waiver to any provision of Section 25.09.08. In addition, the Board of Appeals may impose a lesser requirement instead of granting a complete waiver of any provision in this Section if a complete waiver is not necessary to permit reception or transmission of amateur service communications at the waiver applicant's property, and the lesser requirement will allow the reception or transmission of satellite signals. The Board of Approval shall not condition a waiver upon an applicant's expenditure of a sum of money, including costs required to screen, pole-mount, or otherwise specially install a satellite earth station antenna, over and above the aggregate purchase or total lease cost of the equipment as normally installed, if such sum would be greater that the aggregate purchase or total lease cost of the equipment as normally installed.

2. *Wireless Communication Facilities for Amateur Service Communications*

(a) Any person or entity seeking to install or erect a wireless communication facility in the City for the purpose of engaging in amateur radio communications may apply for a waiver from one (1) or more of the provisions of this Section 25.09.08. and the Board of Appeals may grant such a waiver pursuant to applicable procedures and standards if it is shown that:

i. The provision(s) of Section 25.09.08 at issue preclude amateur service communications, do not reasonably accommodate amateur service communications at the waiver applicant's property or do not constitute the minimum practicable regulation to accomplish the City's health, safety, and welfare objectives; and

ii. The waiver, if granted, would not result in any noncompliance with applicable laws, regulations and codes (including, but not limited to, ~~FCC~~ Federal Communications Commission regulations concerning amateur radio transmission and reception); and

iii. The waiver sought is the minimum waiver necessary to reasonably accommodate amateur service communications at the waiver applicant's property.

(b) The Board of Appeals is authorized to grant a complete or partial waiver to any provision of Section 25.09.08. In addition, the Board of Appeals may impose a lesser requirement instead of granting a complete waiver of any provision in this Section if a complete waiver is not necessary to permit reception or transmission of amateur service communications at the waiver applicant's property, and the lesser requirement:

i. Will not preclude amateur service communications; and

ii. Is the minimum practicable regulation to accomplish the City's health, safety, and aesthetic objectives.

(c) In determining whether to grant a complete or partial waiver of any provision in Section 25.09.08 or to impose a lesser requirement, the Board must reasonably accommodate amateur radio communications.

3. *All Other Wireless Communication Facilities*

(a) The Board of Appeals is authorized to grant a waiver from any and all of the standards of this Section 25.09.08, but except for the height restrictions for a freestanding antenna support structure in subsection c. of this Section, upon showing that compliance with this Section would impose an undue hardship or prohibit or have the effect of prohibiting the provision of wireless communication services or would result in unreasonable discrimination among providers of functionally equivalent wireless communication services.

(b) Waiver requests from the height restrictions (Section 25.09.08.c.2) for a freestanding antenna support structure may be granted by the Mayor and Council upon showing that compliance with this Section would impose an undue hardship or prohibit or have the effect of prohibiting the provision of wireless

communication services or would result in unreasonable discrimination among providers of functionally equivalent wireless communication services. When requesting a height waiver under this provision, the applicant must submit evidence to the Mayor and Council that the height requested for the freestanding antenna support structure is the minimum height necessary to provide adequate coverage for the area that is being served by the structure. The Mayor and Council, in reviewing any waiver request from this Section, must also consider the impact that the increased height of the antenna support structure would have on properties in the area surrounding the proposed structure, including, but not limited to, the visibility of the structure from residences and proposed methods of mitigating the visibility of the structure.

(c) The Board of Appeals is authorized, upon a request of the applicant, to grant a waiver from dimensional restrictions of this Section 25.09.08 with regard to allowing minor size increases for antennas permitted under Section 25.09.08e.1., which will continue to be considered Antenna, small cell as defined in Section 25.03.02, provided the Board makes the additional finding that the increased size is integrated into the structure and limits the visual impact to the maximum extent possible.

(ed) This Section 25.09.08.ef.3 does not apply to antennas and wireless communication facilities specified in Sections 25.09.08.e.1 and 2.

4. *Procedures for All Waivers*

(a) Unless the Mayor and Council adopt by resolution different procedures for processing waivers from the height restrictions contained in Section 25.09.08.e.3, all waivers of this Section must be processed in accordance with the procedures applicable to variances contained in Section 25.06.03 of this Chapter.

(b) A waiver applicant must provide supporting evidence and all information requested by the City. The City may hire an independent consultant to review such evidence, and the applicant must reimburse the City for the reasonable cost of hiring and utilizing such a consultant.

July 6, 2016

STAFF RECOMMENDED REVISIONS

ATTACHMENT TO APPLICATION
TO THE CITY OF ROCKVILLE FOR A
TEXT AMENDMENT TO THE ZONING ORDINANCE

Applicant: Cellco Partnership d/b/a Verizon Wireless

The applicant proposes to amend the zoning ordinance adopted on December 15, 2008, and with an effective date of March 16, 2009, by inserting and replacing the following text (underlining indicates text to be added; double underlines indicated text proposed to be added by the staff; ~~strikethroughs~~ indicate text to be deleted; * * * indicates text not affected by the proposed amendment). Further amendments may be made following citizen input, Planning Commission review and Mayor and Council review.

Amend Article 3, "Definitions; Terms of Measurement and Calculations", as follows:

25.03.02 – Words and Terms Defined

* * *

Antenna, small cell – A wireless communication service antenna, whether omni-directional or panel antenna, with standard dimensions equal or less than four and a half (4 1/2) feet in height and two (2) feet in width or a canister housing panel antennas with a volume of 14 cubic feet, used to collect, receive, transmit, or radiate electromagnetic waves.

* * *

Wireless Communication Facility - A remotely operated facility for the transmission and/or reception of wireless communication services, consisting of one (1) or more antennas, but excluding satellite earth station antennae two (2) meters or less in diameter. Such a facility also may include transmission cables, related equipment enclosures, and, in some cases, a freestanding ground-mounted antenna support structure to achieve the necessary elevation.

Amend Article 9, "Accessory Uses; Accessory Buildings and Structures; Encroachments; Temporary Uses; Home-Based Business Enterprises; Wireless Communication Facilities" as follows:

Section 25.09.08 – Wireless Communication Facility

* * *

b. *Wireless Communication Facilities Attached to Existing Structures* – Except for a facility utilizing a small cell antenna, ~~W~~wireless communication facilities attached to the roof or side of a building, or attached to an existing structure must comply with the following:

* * *

4. Antennas must comply with the following size standards:

(a) Whip antennas must be no more than seven inches (7") in diameter; and
(b) Panel antennas must be no more than two feet (2') wide and ~~six~~ eight and a half feet (~~6~~ 8 1/2') long.

* * *

c. *Wireless Communication Facilities Located on Ground-Mounted Antenna Support Structures*

1. *Scope* – This subsection applies to wireless communication facilities mounted on free-standing antenna structures except for a facility utilizing a small cell antenna.

* * *

d. *Equipment Enclosures Located at Ground Level Standards* – Except for a facility utilizing a small cell antenna, ~~E~~equipment enclosures located at ground level must comply with the following standards:

* * *

e. A wireless communications facility utilizing a small cell antenna is subject to the following provisions:

1. Antennas meeting the definition of antenna, small cell in section 29.03.02 are permitted in all zones;

2. Location:

(a) A small cell antenna may be located on any new or existing building or structure at ~~least~~ a minimum height of 15 feet to the base of the antenna ~~in height~~, measured from the existing grade;

(b) If a replacement structure is needed to support the proposed antenna, the height of the replacement structure cannot exceed the greater of 120 percent or ten (10) feet

of the height of the existing structure it is intended to replace. The replacement structure must maintain the same primary function as the existing structure;

(c) The equipment enclosure to support ~~the~~ small cell antennas, whether located on the support structure, roof, or on the ground, cannot exceed 12 square feet of area at each antenna site and a maximum of five (5) feet in height, and equipment must be removed at the cost of the owner when the facility is no longer being used;

(d) Small cell antennas and support equipment are not permitted to be located on any lot or parcel in a single dwelling unit residential zone, residential medium density zone or mixed use zone occupied by a ~~attached to any~~ single unit detached, ~~or~~ semi-detached, single family attached, or townhouse dwelling or on any accessory building or structure associated with the dwelling. In order of preference, antennas must be installed as follows, with i. being the preferred option:

i. Mounted on nonresidential accessory structures, such as utility poles, flag poles, or existing antenna support structures;

ii. Flush mounted on an existing nonresidential building;

iii. Mounted on the roof of a nonresidential building;

iv. Mounted on the roof or flush mounted on a multi-family building;

v. Mounted on a structure, such as a utility pole or light pole, in the public right-of-way.

(e) In addition, the following regulations apply in the single dwelling unit residential zones:

i. The height to the base of the antennas must be at least 25 feet measured from the existing grade;

ii. The equipment enclosure ground area cannot exceed 12 square feet;

iii. The equipment enclosure, exclusive of connections and cables, cannot exceed the dimensions of two feet by three feet by five feet in height;

iv. The small cell antenna cannot exceed the dimensions of two feet by two feet by three feet in height;

v. A small cell antenna cannot be located any closer than 500 feet from another small cell antenna.

(f) In the case of Planned Development Zones, the designated equivalent zone as set forth in Article 14 applies.

(g) The small cell antenna and support equipment must closely match the color and architectural treatment of the building or structure to which it is mounted.

f. *Waivers Permitted*

* * *

2. *Wireless Communication Facilities for Amateur Service Communications*

* * *

i. The waiver, if granted, would not result in any noncompliance with applicable laws, regulations and codes (including, but not limited to, ~~FCC~~ Federal Communications Commission regulations concerning amateur radio transmission and reception); and

* * *

3. *All Other Wireless Communication Facilities*

* * *

(c) ~~The Board of Appeals is authorized, upon a request of the applicant, to grant a waiver from dimensional restrictions of this Section 25.09.08 with regard to allowing minor size increases for antennas permitted under Section 25.09.08.e.1, which will continue to be considered antenna, small cell as defined in Section 25.03.02, provided the Board makes the additional finding that the increased size is integrated into the structure and limits the visual impact to the maximum extent possible.~~ In the single dwelling unit residential zones the Board of Appeals may grant a waiver to reduce the installation height of the antenna to no less than 15 feet or locate antenna installations closer than 500 feet from other small cell antennas if it is shown that compliance with this subsection e would impose an undue hardship or prohibit or have the effect of prohibiting the provision of wireless communication services or would result in unreasonable discrimination among providers of functionally equivalent wireless communication services.

(d) This section 25.09.08.ef.3 does not apply to antennas and wireless communication facilities specified in Sections 25.09.08.e.1 and 2.

verizon

via email

February 18, 2016

Mr. Deane Mellander, Zoning Administrator
111 Maryland Avenue
Rockville, MD 20850

RE: Zoning Text Amendment
Request for Additional Information Regarding "Small Cell" Network Behavior

Mr. Mellander:

Thanks for taking the time to review our proposal. I understand that you would like to have some additional information ready for the Mayor and City Council as to what small cells are and how they interact with the larger network.

A small cell is a miniaturized cell tower that, due to its smaller size, is able to provide cell coverage to limited areas. The purposes of a small cell are twofold: it can either provide additional capacity to an area of concentrated high volume (eg. a shopping center), or it can provide initial coverage to an area that is currently not covered by a macro-tower but which is too small of a gap to justify or allow building an additional macro site.

When a small cell is functioning to provide additional capacity, the site will work to provide additional traffic to the local users, so that the concentration of users do not all feed back to the same tower, which could be a few miles away. A good analogy would be to imagine a highway; when many drivers are on the road, even if they are only travelling a few exits down the road, traffic moves slowly. The small cell will add additional lanes of traffic so that the same volume of cars, instead of fighting over two lanes of traffic, can instead flow more smoothly over 4 lanes. As for the user, when they are in the concentrated area, without the small cell, a phone could register a strong signal (5 bars on your cell phone), but still suffer through slow speeds or lackluster call fidelity. With the small cell, the user will be able to operate their phone without any noticeable impact; when the user leaves the busy area, then their phone can connect to the next nearest tower as phones normally operate.

When a small cell is acting to provide coverage, it is operating in the same fashion as a tower, only instead of covering miles and miles of land, it will cover only fragments of what a macro would, such as a few blocks down one road. Small cells are ideal in this situation because building a new macro-site could create too great of interference with the other nearby macro-sites, mitigating or obviating the efficacy of the new tower. A good way to visualize this would be to imagine three large circles. The circles shouldn't overlap with each other or else you begin

verizon

to get interference; however, in between the three circles, you have a gap in coverage. The small cell would go there to fill that gap without the interference.

A small cell is typically built as a single antenna, or perhaps multiple antennas if the need arises, which are between 2 and 4 feet tall in size. Each site will have its own radio equipment, power, and telco utilities, and for the most part function completely independently.

In response to the question you asked our counsel, Cathy Borten, as to whether this will eliminate the need for macro towers, I must answer that it will not. Macro towers and small cells fulfill different purposes; it would be as if asking if a motorcycle could replace a tour bus. That said, small cells will go quite a long way in helping macro sites be more efficient in their coverage and, by nature of not needing to design around gaps, mitigate some of the need for macro towers. Verizon views small cells as an integral part of its network growth and expects to emphasize them more, and less on macros than it might if small cells did not exist.

I hope you find this additional narrative helpful and informative. To better assist you, I have included some examples of small cells that have already been built in the Baltimore/Washington market.

Please feel free to contact me if you have additional questions. I can be reached at mweiland@nbcllc.com or at 410-712-7092 x1530.

Thank you for your time.

Sincerely,

Michael Weiland
Land Use Associate, Network Building + Consulting, LLC
On behalf of Cellco Partnership d/b/a Verizon

5 May 2016

City of Rockville
111 Maryland Avenue
Rockville, Maryland

Dear Madame Mayor, Members of the City Council and Rockville City Manager:

On Monday, April 25, 2016, I appeared before you at Community Forum to alert you to the fact that Verizon Wireless has proposed a zoning text amendment to allow installation of as many cell antennas as Verizon chooses anywhere in the city without approval of any government body. Only single-family detached residences are exempted. This text amendment would allow Verizon to install the equivalent of an unlimited number of cell tower monopoles in Town Center and along the Rockville Pike. Since these cell antennas have unknown, but potentially adverse safety/health effects and citizens have not been notified, I request that hearings and decision meetings regarding this text amendment be removed from the schedule until credible technical and scientific information can be assembled and citizens have received notification.

Prior to anyone in the public knowing about the proposed text amendment and without seeking approval of the Mayor and Council, city staff scheduled public hearings before the Planning Commission on May 11th and before the Mayor and Council on June 6th. This appears to have been done without any technical assessment of the impact of the proposed text amendment or scientific investigations. The city needs to assemble essential scientific knowledge to understand or evaluate the impact and potential harm that could result from widespread installation of these antennas on telephone poles, apartments, commercial/office buildings or any other structure that allows the antennas to be 15 feet above the ground. I believe that staff should have notified the public and sought approval from the Mayor and Council before scheduling public hearings. This approach fails to protect the public and prevents citizens from participating because they are not aware of the issue or have insufficient time to understand it. It is not sufficient for the City to use Rockville Reports to communicate with citizens **after** hearings are already scheduled thereby preventing citizens from having time to analyze or discuss the issue.

It is my understanding that the Mayor and Council are allowing these hearings to continue because they have already been advertised. Next Monday, the Mayor and Council have another opportunity to revisit this issue. I strongly recommend that they direct staff:

- to cancel the public hearings;
- to prepare a plan to obtain essential technical, safety and scientific information, subject to the approval of the Mayor and Council; and
- to prepare a plan to notify citizens of the text amendment and the scientific findings.

No further action on the text amendment should be taken until these steps are accomplished.

Thank you for listening and giving consideration to this issue. I believe the recommended steps are tremendously important to the future of Rockville. It is essential to assure that our processes protect the well being of citizens and provide governance of the city in a fair and well-reasoned manner.

Sincerely,

Noreen Bryan
President, West End Citizen's Association

Testimony for the Planning Commission
11 May 2016
Proposed Text Amendment for "Small" Cell Antennas

Good Evening, my name is Noreen Bryan and I live at ~~2017~~ 207 S. Washington St. Tonight I will be testifying for the West End Citizen's Association (WECA).

There are three concerns that I would like to raise with you this evening.

- Lack of transparency
- Lack of notification of citizens
- Better scientific and technical information is needed prior to review and decisions by the Planning Commission and the Mayor and Council.

Lack of Transparency

The proposed text amendment is written for lawyers not citizens. With its many cross references to various sections in the Zoning Ordinance, it is like putting together a jigsaw puzzle hunting for pieces and trying to figure out the picture that is emerging. Unfortunately, when staff reviewed the proposal they have continued this circuitous cross-referencing which makes it impossible to comprehend their recommendations, as well. This not only makes it impossible to understand, but means that trying to have a conversation about it is extraordinarily difficult because everyone is likely to have a different understanding of the proposal. WECA recommends that no further review of the text amendment be performed until a clear delineation of the provisions of the text amendment be prepared in "man-on-the-street" language. This should include a side-by-side comparison of the proposal and staff's recommendations. Clarity and transparency is essential to reach a valid understanding to the proposal.

Lack of Notification of Citizens

From my reading of the proposed text amendment it is my understanding that Verizon Wireless is asking to be able to place antennas in all zones as a permitted use. Only detached single family houses are exempted. Said another way Verizon is asking to put antennas anywhere they choose without anyone knowing. This

proposal affects all citizens in Rockville and therefore city-wide notification should be done. Even though the Zoning Ordinance does not require notification for text amendments, citizens should receive notification when a proposal has consequential impact on them. An article in Rockville Reports is not adequate or timely if hearing dates have already been set by city staff. Personally, I would not be aware of the proposal if I had not received information from Hjarman Cordero, Rockville Resource Coordinator. I am appreciative of his efforts and shared the information with the neighborhood, but that is not sufficient notification. As a neighborhood organization we are happy to partner with the City to share information, but, again, that is not notification. WECA recommends that no further reviews be conducted until citizens receive notification. WECA sent a letter you, the Mayor and Council and the City Manager with this request on May 5th. A copy is attached.

Better Scientific and Technical Information is Needed

Better scientific and technical information is needed. There is world-wide concern about the adverse health impacts of radiofrequency and microwave radiation. A paper has been submitted to you by Dr. Ronald Powell in opposition to installation of these cell antennas. He has provided you with a list of current studies performed by leaning authorities regarding the adverse impacts of radiation, particularly on children. The body of scientific information needs to be reviewed by experts so that Rockville does not make a decision blindly without understanding the consequences to the health of its citizens.
To my knowledge there is no one on city staff who has the scientific expertise needed to evaluate these studies or the health impact of the proposed text amendment. The appropriate experts should be engaged.

In addition to health concerns there are bonafide safety concerns about where and how these antennas are installed around the city. For example, suppose the antenna is attached to an existing pole and the pole falls over and hurts someone. Who is responsible? Did the installation of the antenna damage the pole or cause it to fall over? Was the pole in poor condition when the antenna was installed and a bad decision was made to install an antenna on the pole? What constrains Verizon from erecting poles or support structures wherever it chooses. These issues of liability and safety need to be investigated. Is it reasonable to allow Verizon to attach antennas without the city having any knowledge of their location and the procedures that will be

followed, etc. Nadia Azumi, WECA Committee Chair on Cell Towers, has provided me with an analysis of the engineering and safety problems that can arise when these antennas are installed. A copy is attached.

Lastly, there are the aesthetic concerns associated with too many antennas and poles installed without a plan or oversight.

WECA recommends that expert scientific and technical information be gathered and reviewed by qualified engineers and scientists before further discussion of the proposal continues. At the very least these antennas should not be installed as a permitted use. A resolution to this effect was adopted by WECA and a copy was sent to you by letter on March 25, 2016. (copy attached).

This rusty old physicists knows that I am not sufficiently knowledgeable to evaluate the technical and scientific aspects of the proposal, but I do know that knowledgeable and qualified scientists and engineers are critically important to you and the Mayor and Council. They are essential to helping you make a decision that protects the health and safety of Rockville's residents.

Thank you for listening and considering WECA's views and recommendations.

5 May 2016

City of Rockville
111 Maryland Avenue
Rockville, Maryland

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Sincerely,

Noreen Bryan
President, West End Citizen's Association

Planning Commission

Members of the Planning Commission, ladies and gentlemen, good evening.

For the record my name is Nadia Azumi, and for the last 25 plus years my family and I reside at 6, Nocturne court .

I am here tonight to strongly oppose the mini cell towers in the Town Center, for many reasons, as well as questions with concerns.

- Why does Verizon need a special zoning and why wasn't the public notified ahead of time, by letters?
- Mini cell towers have stronger radiation than the big ones as they are very close to humans.
- Cell tower companies can increase the power of the cells without informing the public, or the community, is the Planning Commission aware of that?
-
- In addition, I suggest for a reasonable amended language that restricts any small cell attachment and structure modification that would result in a damaged, removed, or a significantly diminished tree. I think that Rockville should grant the amended language on the grounds that damaged/diminished tree cover would, among other things,
- 1. Have deleterious effects upon the environment and local quality of life;
- 2. Adversely impact home values and business profits, which in turn would affect the City's tax base; and
- 3. Especially in the public rights-of-ways adversely impact pedestrian health.
- Just so you know, Verizon Wirelesses' attorneys may claim your requested amendment would be discriminatory against wireless carriers because Verizon owns some of the utility poles to which current telephone wire lines (i.e. functionally equivalent services) are attached, and the utility pole owners do trim/cut trees. Nevertheless, there is enough pro-consumer/City evidence in preserving trees that the City might find a way to make an amendment work.
-
- See this paper from the U.S. Forest Service for a long list of reasons: http://www.ufmptoolkit.com/pdf/Benefits-of-Urban-Street-Trees.pdf

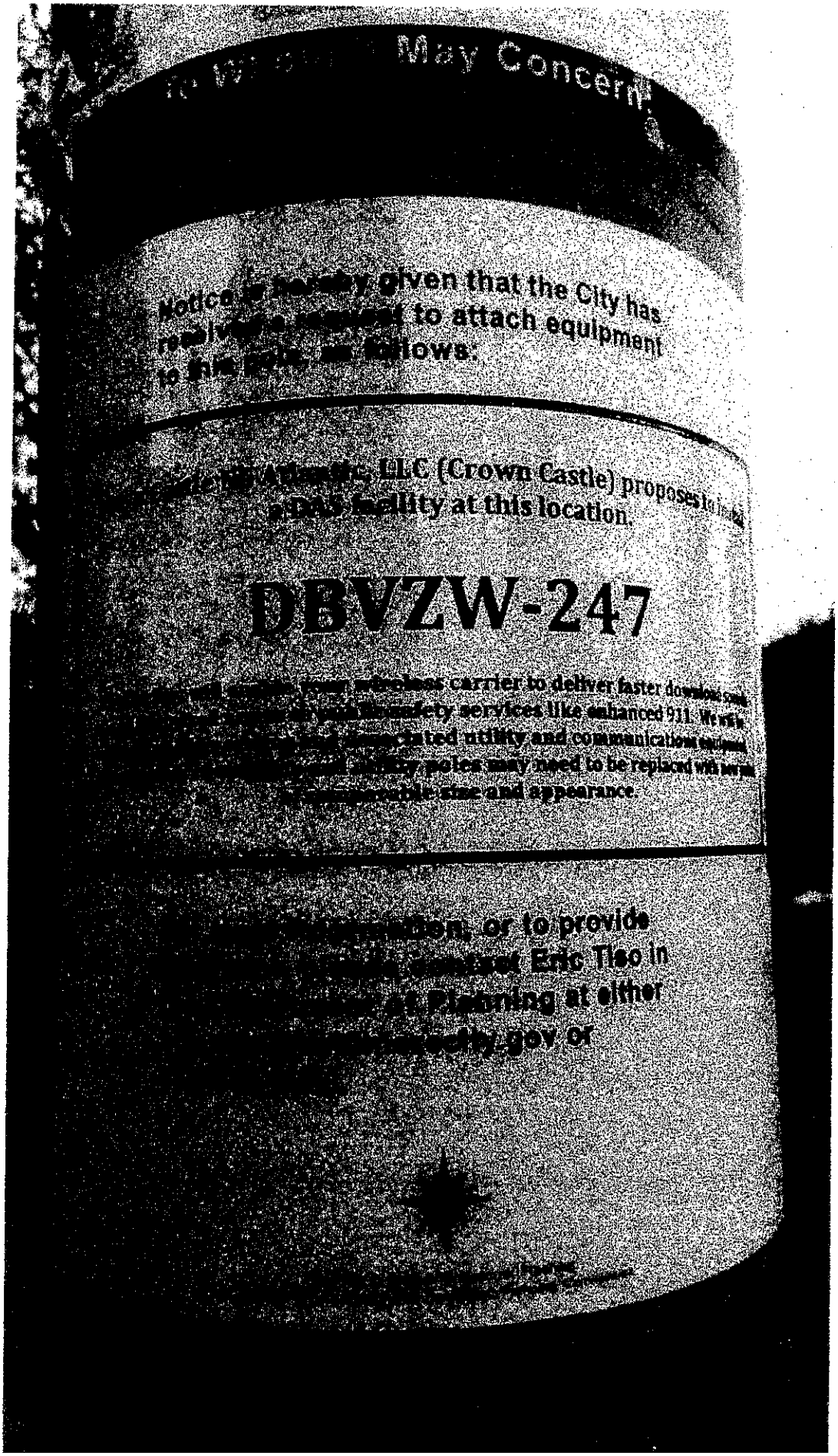
- Finally we came across a document from Verizon Communications Inc, addressed to the United States Securities and Exchange Commission for 10-k Annual Report of 2014, in which it states.

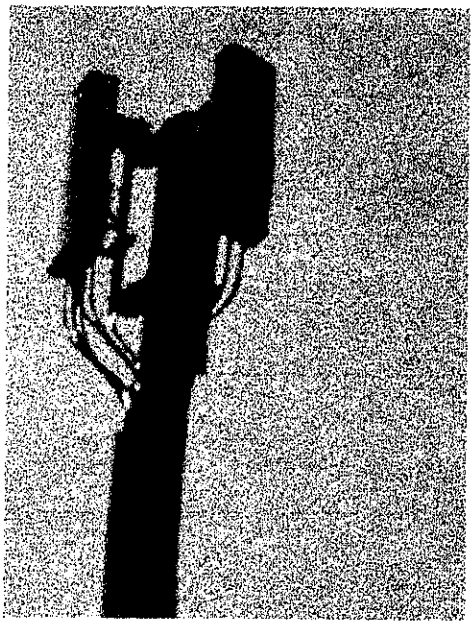
"We are subject to a significant amount of litigation, which could require us to pay significant damage or settlements. Also part of the document adds. We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us. Nevertheless there can be no assurance that the cost of compliance with existing or future environmental laws will not be a material adverse effect on us."

I think that you have all received the detailed article that Dr. Powell wrote. He agreed to help without attending, and we spoke at length on these issues.

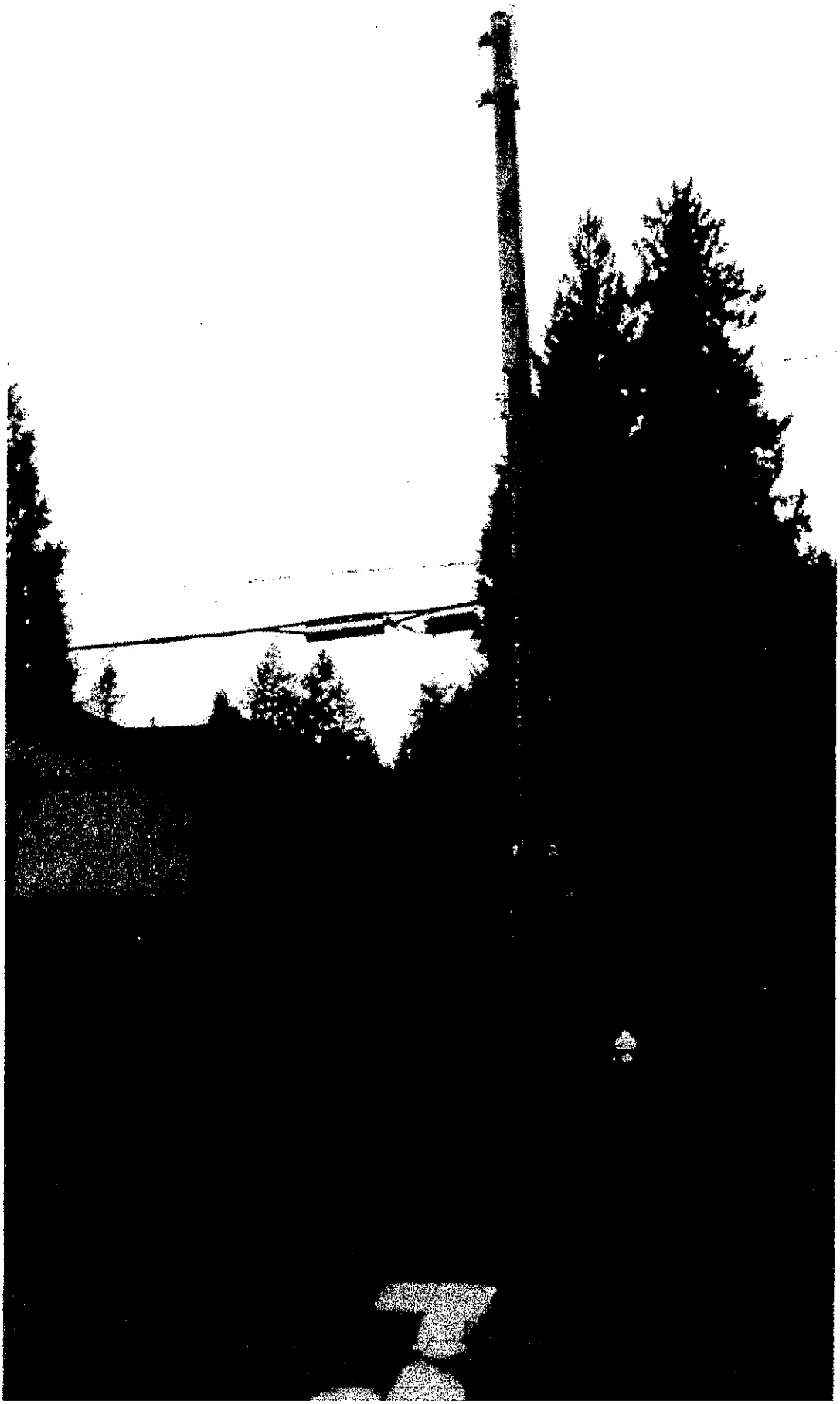
Thank you,

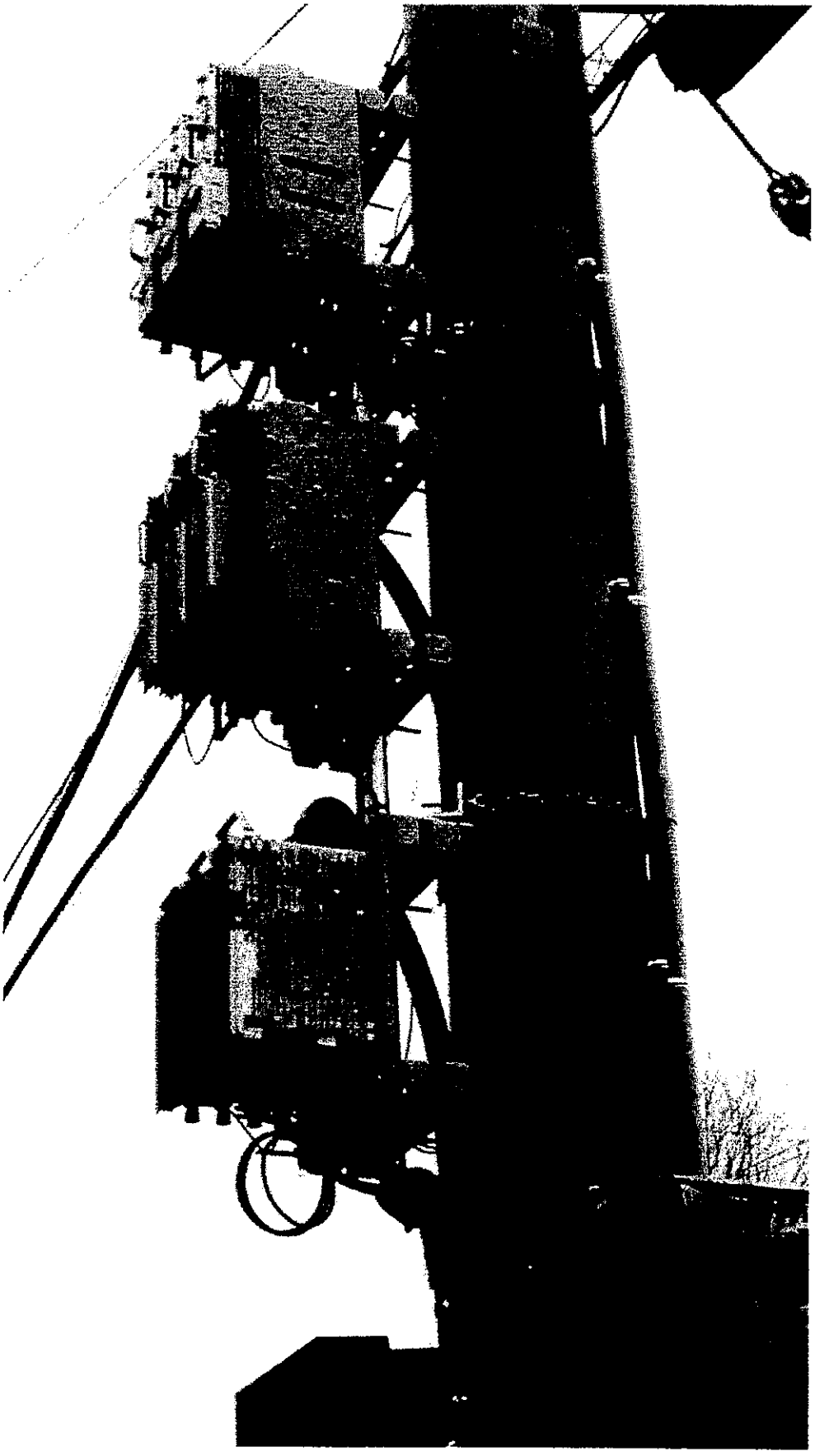
Nadia Azumi


To Whom It May Concern:
Notice is hereby given that the City has received a request to attach equipment to this pole, as follows:
LLC (Crown Castle) proposes to
facility at this location.
DBVZW-247
carrier to deliver faster
services like enhanced 911. We will
utility and communications
poles may need to be replaced with
size and appearance.
or to provide
Eric Tieo in
Planning at either
gov or



Attachment B





Comments Submitted in Strong Opposition to Contemplated Installation of "Small Cell Antennas" in Rockville, MD

May 8, 2016

TO: Rockville City Council

FROM: Ronald M. Powell, Ph.D.
Montgomery Village, MD
Background: Ph.D., Applied Physics, Harvard University
Retired career U.S. Government scientist

Dear Sir or Madam,

According to the "Planning Commission Staff Report: Zoning Text Amendment TXT2016-00244", the City of Rockville is considering wireless industry requests for the installation of small cell antennas. Approving such requests would be immensely unwise for the public health.

Please resist the installation of small cell antennas by all means possible to further the public health.

The reason for resisting the installation of more cell antennas, whether they are cell towers or small cell antennas, is that they all emit electromagnetic fields, in the form of radiofrequency and microwave radiation, that are increasingly being shown to be harmful to human health. Adding more cell antennas further degrades our environment and increases the risk to health of everyone who lives in our community. Scientists and physicians from around the world are increasingly demonstrating that these fields are harmful to human health in multiple ways. See the evidence of this harm, beginning on page 2 of this document.

Do not be intimidated by wireless industry claims that the Telecommunications Act of 1996 prohibits resisting the installation of more cell antennas on health grounds. It is true that this Act is intended to suppress the control of state and local governments over their own environments and to give industry a nearly free hand in locating cell antennas. But that does not mean that yielding to industry pressure for more cell antennas is your only possible response. Rather, activate your legal people to scrutinize the Act for all possible grounds on which you can resist, as other communities in the USA have had to do, until such time as the Act is finally overturned.

Do not be misled by wireless industry claims that cell antennas are safe because they comply with guidelines of the Federal Communications Commission. Those FCC guidelines protect only against radiation levels so high that they threaten to overheat living tissue. Those guidelines DO NOT PROTECT against all possible health effects caused by the radiation, and there are SO MANY of those health effects.

Do not be bribed into accepting more cell antennas by any payments made to the City of Rockville to induce such acceptance. Such inducements are a Faustian bargain, where the City trades the invaluable health and happiness of its community for a comparative pittance.

Know that public awareness about the harm caused by cell radiation is growing, slowly but steadily. As that awareness continues to increase, NO ONE will want to live near cell antennas, work near them, shop near

them, buy property near them, stand near them, or even walk past them, because the radiation that they emit will be highest closest to them, not to mention their appearance. You can imagine what is likely to happen to the value of property located near cell antennas. Unfortunately, making cell antennas less ugly or smaller doesn't make them safer.

If you feel that you do not yet fully understand the health risks presented by cell antennas, and that you need more time to gain that understanding, defer your consider of the installation of more cell antennas until you have thoroughly investigated those risks by reviewing the work of the international biomedical research community. Do not rely on biased sources that make money by selling products and services that increase the radiation levels in YOUR environment.

The worst mistake that you can make is to proceed with installation now, only to find out later, what an immense mistake you have made. It will cost the City much more to undo that mistake later than to prevent it from occurring now.

Evidence of Harm from Exposure to Electromagnetic Fields

International Agency for Research on Cancer (IARC) of the World Health Organization (WHO)

The World Health Organization, through its International Agency for Research on Cancer, in 2011, classified electromagnetic fields, including those used for cellular communications, as a Class 2B carcinogen (a possible carcinogen). That class of carcinogens includes hundreds of toxic substances like lead, chlordane, and nitrobenzene. Do we really want small cell towers spewing out radiation that is in the same class as these other toxins, right into our community? Do we really want our children walking past them, or standing next to them?

http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf

Since 2011, the research supporting a higher risk classification for electromagnetic fields – specifically Class 2A (probable carcinogen) or even Class 1 (known carcinogen) -- has continued to build.

International Appeal Signed by the World's Leading Scientists on Health Effects of Electromagnetic Fields

The world's leading scientists conducting research on the biological effects of the radiation from wireless devices recently issued an appeal to the United Nations and to the World Health Organization to warn the public about the health risks from exposure to the radiation from wireless devices. As of February 10, 2016, 220 scientists from 42 countries have signed that international appeal.

https://www.emfscientist.org/index.php/emf-scientist-appeal

The appeal was first introduced in May 2015 and continues to gain support. These scientists seek improved protection of the public from harm from the radiation produced by many wireless sources, including explicitly "cellular and cordless phones and their base stations" among others. Together, these scientists have published over 2000 peer-reviewed research papers on this subject. They state the following:

> "Numerous recent scientific publications have shown that EMF [electromagnetic fields] affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional

changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life."

American Academy of Environmental Medicine

The American Academy of Environmental Medicine (AAEM), which trains physicians in preparation for Board Certification in Environmental Medicine, states: "The AAEM strongly supports the use of wired Internet connections, and encourages avoidance of radiofrequency such as from WiFi, cellular and mobile phones and towers, and 'smart meters'." AAEM further states that "The peer reviewed, scientific literature demonstrates the correlation between RF [radiofrequency] exposure and neurological, cardiac, and pulmonary disease as well as reproductive and developmental disorders, immune dysfunction, cancer and other health conditions. The evidence is irrefutable."

AAEM, Wireless Radiofrequency Radiation in Schools, November 14, 2013
http://www.aaemonline.org/pdf/WiredSchools.pdf

American Academy of Pediatrics

The American Academy of Pediatrics (AAP), whose 60,000 doctors care for our children, supports the development of more restrictive standards for radiofrequency radiation exposure that would better protect the public, particularly the children. The AAP, in a letter to the Federal Communications Commission (FCC) and the Food and Drug Administration (FDA), dated August 29, 2013, states that

"Children are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation. Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standard for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes."
http://apps.fcc.gov/ecfs/document/view?id=7520941318

Environmental & Human Health, Inc. (Yale University Faculty)

A detailed study of the health implications of cellular radiation was published in 2012 by Environmental & Human Health, Inc. This study was funded by a source with no ties to the wireless industry. Nearly all of the principals of this organization are Yale University faculty members, with M.D., Ph.D. or M.P.H. degrees and distinguished backgrounds in multiple fields of relevance including: public health, pediatrics, oncology, toxicology, environmental epidemiology, environmental health, environmental medicine, occupational medicine, obstetrics, gynecology, reproductive sciences, and risk analysis and environmental policy.

In this study of health effects from cellular radiation, the scientists and doctors describe cancer (particularly glioma, a form of brain cancer), effects on the nervous system (including memory, learning, and cognition), effects on reproductive health, genotoxic and DNA damage, and neurodevelopmental and behavioral effects.

John Wargo, Ph.D., Hugh S. Taylor, M.D., and other professionals, The Cell Phone Problem, Cell Phones: Technology, Exposures, Health Effects (2012). See especially Summary, Health Effects, beginning on page 57.
http://www.ehhi.org/reports/cellphones/cell_phone_report_EHHI_Feb2012.pdf

Exposure Guidelines of the Federal Communications Commission Do NOT Protect Against All Health Effects

Do not be impressed when the vendors of small cell towers cite their compliance with the exposure guidelines of the Federal Communications Commission (FCC). The FCC exposure guidelines were designed to protect against so-called "thermal" effects of electromagnetic fields, that is, against effects caused by heating the body too much. Those exposure guidelines were not designed to protect against ALL biological effects (which include non-thermal effects that occur at levels of radiation well below thermal levels).

The FCC exposure guidelines, which are called the Maximum Permissible Exposure (MPE)) guidelines, are based on work done in 1986, or 30 years ago, and have not been significantly changed since. Back then, nearly all of the wireless devices that we use today did not exist. Since then the international biomedical research community has published thousands of studies that have added to our knowledge about the biological effects of exposure to electromagnetic fields from modern wireless digital devices. At this point, we know more than enough to take precautionary action against increasing the exposure of the public to harmful radiation from wireless digital devices. Here is what three Federal agencies, including the FCC itself, have said about the exposure guidelines of the Federal Communications Commission.

Federal Communications Commission

The FCC makes no claim that the FCC guidelines constitute a federally developed national standard for safe levels. In fact, the FCC, on its web site, explicitly indicates the contrary:

> "While there is no federally developed national standard for safe levels of exposure to radiofrequency (RF) energy, many federal agencies have addressed this important issue."
>
> Federal Communications Commission, "Wireless Devices and Health Concerns", first section "Current Exposure Limits", first sentence.
> https://www.fcc.gov/consumers/guides/wireless-devices-and-health-concerns

U.S. Environmental Protection Agency

The limitations of the thermal exposure guidelines of the FCC, the IEEE, and the ICNIRP, were described by the Environmental Protection Agency (EPA) in 2002 as follows:

> "The FCC's current exposure guidelines, as well as those of the Institute of Electrical and Electronics Engineers (IEEE) and the International Commission on Non-ionizing Radiation Protection [ICNIRP], are thermally based, and do not apply to chronic, nonthermal exposure situations.... The FCC's exposure guideline is considered protective of effects arising from a thermal mechanism but not from all possible mechanisms. Therefore, the generalization by many that the guidelines protect human beings from harm by any or all mechanisms is not justified."
>
> "Federal health and safety agencies have not yet developed policies concerning possible risk from long term, nonthermal exposures. When developing exposure standards for other physical agents such as toxic substances, health risk uncertainties, with emphasis given to sensitive populations, are often considered. Incorporating information on exposure scenarios involving repeated short duration/nonthermal exposures that may continue over very long periods of time (years), with an

exposed population that includes children, the elderly, and people with various debilitating physical and medical conditions, could be beneficial in delineating appropriate protective exposure guidelines."

Summing up, the EPA makes the following points in the above statements: (1) the FCC thermal exposure guidelines do NOT protect against all harm, only the harm caused by too much heating; (2) the FCC thermal exposure guidelines do not apply to "chronic, nonthermal exposure", which is the type of exposure generated by cell towers; and (3) when new FCC guidelines are developed for chronic nonthermal exposures, they must accommodate children, the elderly, and other high risk groups because those groups are not accommodated now.

Letter from Frank Marcinowski, Director, Radiation Protection Division, EPA, and Norbert Hankin, Center for Science and Risk Assessment, Radiation Protection Division, EPA, to Janet Newton, President, the EMR Network, with copies to the FCC and the IEEE, and dated July 16, 2002. http://www.emrpolicy.org/litigation/case_law/docs/noi_epa_response.pdf

U.S. Department of the Interior

The limitations of the FCC thermal exposure guidelines were described in a totally different way by the U.S. Department of the Interior (Fish and Wildlife Service) in 2014. The Interior Department was motivated principally by multiple adverse effects of electromagnetic radiation on the health, and the life, of birds, particularly in connection with cell towers.

"However, the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today."

Letter from Willie R. Taylor, Director, Office of Environmental Policy and Compliance, Office of the Secretary, United States Department of the Interior to Mr. Eli Veenendaal, National Telecommunications and Information Administration, U.S. Department of Commerce, dated February 7, 2014.
https://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf

Comparison of the FCC exposure guidelines to those of other countries and jurisdictions

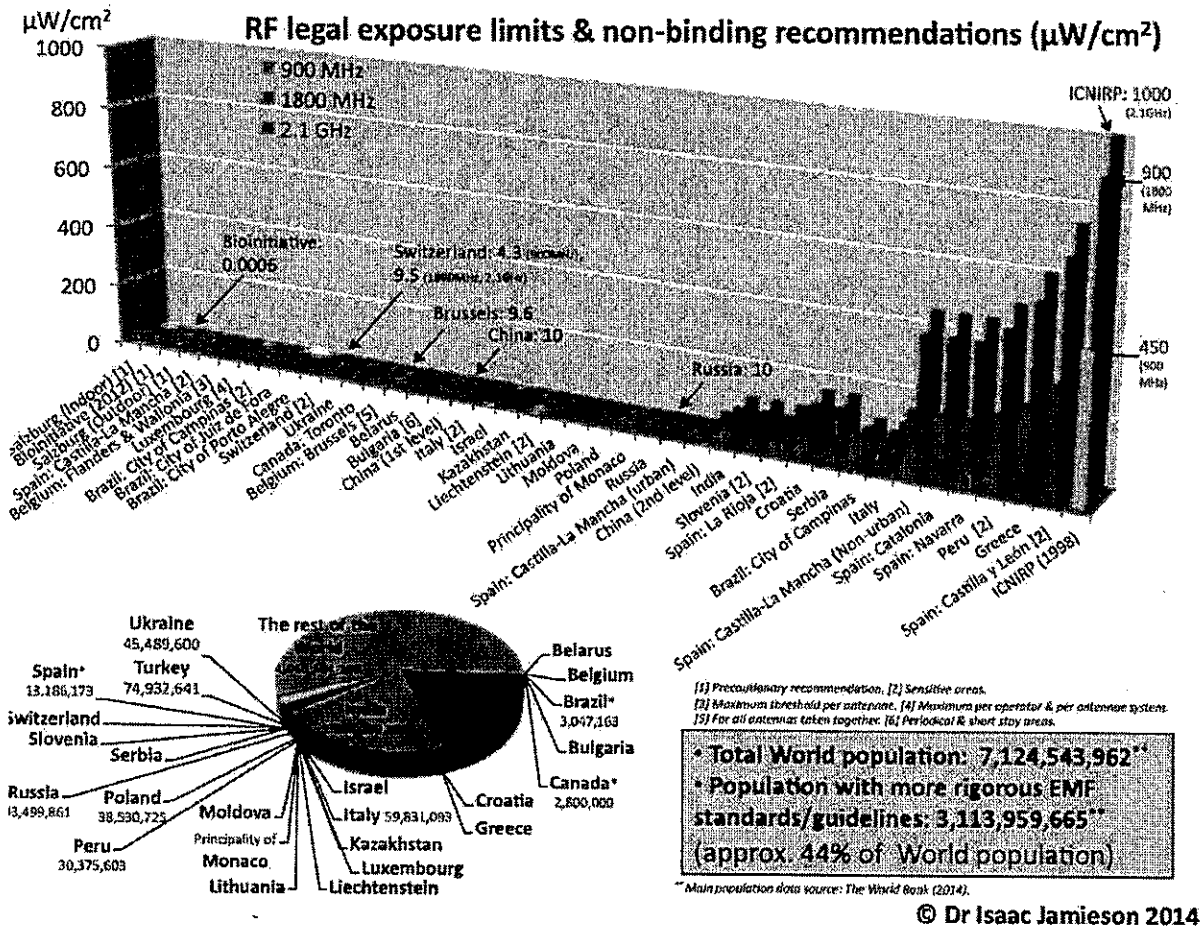
The graph, in Figure 1 on the following page, compares the exposure guidelines of many countries and some cities throughout the world.[1] The highest, that is the most permissive and thus the least protective, of the exposure guidelines shown in Figure 1 are those that of the "ICNIRP". The ICNIRP is the International Commission on Non-Ionizing Radiation Protection, which is a private organization in Germany. As noted in the insert box in Figure 1, approximately 44 percent of the world's population now lives in locations with "more rigorous" (that is, lower, and thus more protective) guidelines than those of the ICNIRP.

Figure 1 does not show the FCC guidelines, so I have shown them, in comparison to the ICNIRP guidelines, in Table 1 on the next page. Note that the FCC guidelines are equal to, or higher than, the ICNIRP guidelines at all three frequencies covered by Figure 1 (2.1 GHz, 1800 GHz, and 900 GHz). Therefore, the FCC's outdated

[1] Figure 1 was prepared by Isaac Jamieson, Ph.D. of the United Kingdom, and was presented by Erica Mallery-Blythe, M.D., also of the United Kingdom, in Electromagnetic Hypersensitivity, A Summary by Dr Erica Mallery-Blythe, Working Draft, Version 1, December 2014, page 6 (http://www.electronicsilentspring.com/wp-content/uploads/2014/01/Dr-Erica-Mallery-Blythe-EHS-A-Summary-Working-Draft-Version-1-Dec-2014-for-EESC-Brussels.pdf). Dr. Jamieson's website is (http://www.biosustainabledesign.org/).

guidelines provide less protection, and in nearly all cases FAR LESS protection, of U.S. citizens than the protection provided for approximately 44 percent of the world's population.

Figure 1



By Dr Erica Mallery-Blythe: "EHS A Summary" Dec 2014 Working Draft Version 1 Page 6

Table 1

Frequency		Exposure Guideline/Limit (µW/cm²) microwatts per square centimeter		Comparison
MHz (megahertz)	GHz (gigahertz)	ICNIRP	FCC[2]	
2100	2.1	1000	1000	FCC = ICNIRP
1800	1.8	900	1000	FCC > ICNIRP
900	0.9	450	600	FCC > ICNIRP

Can we expect more protective exposure guidelines from the FCC in the near future?

In a word: No. The reason is that the FCC is too tightly controlled by the wireless industries that the FCC is supposed to regulate. Sadly for all U.S. residents, the FCC has acted in partnership with the wireless industries by permitting wireless radiation levels far higher than the biomedical research literature indicates are causing

[2] Federal Communications Commission, Office of Engineering & Technology, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65, Edition 97-01, Appendix A, Summary of RF Exposure Guidelines, Table 1, Limits for Maximum Permissible Exposure, Part (B), Limits for General Population/Uncontrolled Exposure, page 67, August 1997 (https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf).

biological effects. The success of the wireless industries in capturing the FCC, the committees in the U.S. Congress that oversee the FCC, and the Executive Branch is detailed in a new monograph from the Center for Ethics at Harvard University.[3] As an example of that capture, the President, in 2013, appointed, as head of the FCC, the former head of the CTIA - The Wireless Association, which is the major lobbying organization for the wireless industries. This, of course, is the infamous "revolving door".

Implication and Conclusion

The implication is of the above information is this: If the City of Rockville wants to protect its residents from exposure to harmful levels of electromagnetic radiation, it will have to act on its own. The good news is that the City of Rockville can do so.

Please resist, by all means possible, the installation of any further cell antennas in Rockville, whether small or large. They degrade our environment by increasing the risk to the health of everyone who lives in our community.

Who am I?

I am a retired career U.S. Government scientist (Ph.D., Applied Physics, Harvard University, 1975). During my Government career, I worked for the Executive Office of the President, the National Science Foundation, and the National Institute of Standards and Technology in Gaithersburg. For those organizations, respectively, I addressed Federal research and development program evaluation, energy policy research, and measurement development in support of the electronics and electrical-equipment industries and the biomedical research community. I currently interact with other scientists and with physicians around the world on the impact of the environment – including the radiofrequency/microwave environment – on human health.

I have been a resident of the Montgomery Village/Gaithersburg area since 1979. Rockville is an extremely important and supportive community for all of us who live in this area. I want to continue to visit and to shop in Rockville, knowing that the City of Rockville has made every possible effort to assure that it is a safe place for everyone.

Thank you for your attention,

Regards,

Ronald M. Powell, Ph.D.
20316 Highland Hall Drive
Montgomery Village, MD 20886-4007
E-mail: ronpowell@verizon.net
Tel: (301) 926-7568

[3] Norm Alster, Captured Agency: How the Federal Communications Commission is Dominated by the Industries It Presumably Regulates, 2015 (http://ethics.harvard.edu/news/new-e-books-edmond-j-safra-research-lab).

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+PRACTICING IN VIRGINIA AND THE DISTRICT OF COLUMBIA

WRITER's DIRECT DIAL NUMBER
(240) 246-1624
EMAIL: Cathy.Borten@mgd-law.com

May 10, 2016

City of Rockville Planning Commission
Rockville City Hall
111 Maryland Avenue
Rockville, MD 20850

Re: Zoning Text Amendment
Chapter 25, Article 3, Section 25.03.02 and
Chapter 25, Article 9, Section 25.09.08

To the Planning Commission:

We represent Verizon Wireless in connection with the proposed Zoning Text Amendment of Chapter 25, Article 3, Section 25.03.02 and Chapter 25, Article 9, Section 25.09.08, specifically the portions of the proposed Zoning Text Amendment addressing small cell antennas. On behalf of Verizon Wireless, we ask that in its consideration of the proposed Zoning Text Amendment, the Planning Commission and Mayor and Council consider the following modifications to the proposed language in order to provide clarity, consistency and flexibility going forward. The suggested modifications to the text, as staff proposes to revise it, are set out below.

Chapter 25, Article 3, Section 02 – revision to definition of "Antenna, small cell."

As originally proposed, a small cell antenna would have the standard dimensions of 4 ½ feet by 2 feet. This is consistent with what was recently adopted by the City of Gaithersburg. Staff has recommended reducing the height to 3 feet, citing an interest in being consistent with the Montgomery County small cell ordinance. It is important to note that the revisions to the Montgomery County Code were originally proposed over 2 years ago. The technology has changed at a rapid clip since that time, and the industry is learning that the 3 foot max height is not workable.

Verizon Wireless proposes that the definition of "Antenna, small cell" be approved with the 4 ½ foot height as originally proposed, and with a more comprehensive list of antenna types, to read as follows (proposed revisions in ***bold italics***):

> A wireless communication service antenna, whether omni-directional or panel antenna, ***not to exceed 4.5 feet in height and 2 feet in width, or a canister antenna not to exceed 4.5 cubic feet in volume***, used to collect, receive, transmit, or radiate electromagnetic waves.

This further revised language accomplishes several important things.

Functionally, antennas used in small cell installations come in sizes of 2, such that, after a 1 foot antenna, they come in 2 foot, 4 foot, etc. Without a 3 foot antenna to install, a 3 foot height limit only allows a 2 foot antenna in actuality. A 2 foot antenna is simply not as effective for achieving the results intended by small cell installations.

In addition, the use of the slightly larger, 4 foot antenna provides Verizon Wireless with greater control over the signal. That control is absolutely essential to reducing possible interference, and reduced interference allows for fewer actual sites. As a result, a slightly larger antenna is more effective and allows for fewer such sites in the City. The additional ½ foot requested is to allow for connections between equipment and antennas. With regard to being consistent with Montgomery County, note that Verizon Wireless plans to file a text amendment in Montgomery County seeking an increase of that 3 foot height max. Again, this would bring the County code current with what's being done in the City of Gaithersburg, and with the landscape of the technology as it exists today.

Chapter 25, Article 9, Section 08(e)2(d) – addition of language

In this section, Staff has recommended a tightening up of the language as it relates to residential zoning. As proposed by staff, in a residential zone small cell antennas could only be placed on an existing nonresidential building. As drafted by staff, the exception would only apply to buildings specifically. However, small cells can be creatively installed on other non-residential structures such as light poles. Verizon Wireless proposes to add language (as shown in ***bold italics*** below) to acknowledge the issue of easements, and to allow small cell antennas in residential zones to be located on an existing OR REPLACEMENT non-residential building OR STRUCTURE, to read as follows:

> ***With the exception of land covered by a utility easement,*** small cell antennas and support equipment are not permitted to be located on any lot or parcel in a residential zone occupied by a single unit detached, semi-detached, single family attached, or townhouse dwelling or on any accessory building or structure associated with the dwelling. In addition, in a residential zone, small cell antennas can only be located on ***a new,*** ~~an~~ existing ***or replacement*** nonresidential building ***or structure.***

Note that this is not to allow placement on residential buildings. In addition, this language would allow for small cell antennas to be installed on new, existing or replacement light poles that have been structurally strengthened to accommodate the installation. Again, the intent here is to reflect what's functionally possible, while keeping the intent of the pertinent sections intact.

We welcome the opportunity to provide comment on Staff's proposed revisions to the proposed Zoning Text Amendment. Overall, the proposed text amendment is a positive step in meeting the changing technologies and practical applications in the wireless telecommunications arena. With the modifications to the Amendment suggested here, the City will be better poised to meet those needs with the greatest efficiency and flexibility. Thank you for your consideration.

Sincerely,

Cathy G. Borten
Counsel for Verizon Wireless

cc: Deane Mellander
David Reinauer
Jose Espino
Mike Weiland
Stephanie Petway
M.G. Diamond, Esq.

EXHIBIT 10
Attachment B

ExteNet Systems, Inc.
3030 Warrenville Road, Suite 340
Lisle, IL 60532
Phone: (630) 505-3800
Fax: (630) 577-1332
www.extenetsystems.com

June 15, 2016

Mayor and City Council of Rockville
City of Rockville Planning Commission
111 Maryland Avenue
Rockville, MD 20850

To the Mayor, City Council and Planning Commission:

I have reviewed the proposed Zoning Text Amendment of Chapter 25, Articles 3 and 9, proposed by Cellco Partnership, d/b/a Verizon Wireless, as it relates to the installation of small cell wireless facilities and ask that you consider this letter as general support for the text amendment.

Sincerely,

Tamara Slade
Director, External Relations

T-Mobile

June 21, 2016

City of Rockville, MD
111 Maryland Avenue
Rockville, Maryland 20850

RE: Zoning Text Amendment
Chapter 25, Article 3, Section 25.03.02, entitled "Definitions" and Chapter 25, Article 9, Section25.09.08, entitled "Wireless Communication Facility"

To the Mayor, City Council, and Planning Commission

T-Mobile has reviewed the proposed changes recommended in the Zoning Text Amendment submitted by Verizon Wireless in reference to small cell facilities. T-Mobile is in support of the suggested changes.

Sincerely,

Brendan Bellotte
Manager, Engineering Development
T-Mobile
12050 Baltimore Ave
Beltsville, MD 20705

T-Mobile USA, Inc.
Office: (240) 264-8600
Fax: (240) 264-8610
12050 Baltimore Avenue
Beltsville, MD 20705

Nadia Azumi

From: Larry Giammo [larry@larrygiammo.com]
Sent: Tuesday, June 21, 2016 5:17 PM
To: planning.commission@rockvillemd.gov
Cc: Nadia Azumi; Andrew Sellman (sellmana@verizon.net); Jane Pontius; Dennis Cain; Dennis Cain (cain.df@gmail.com); Jen Timmick (jentimmick@gmail.com); Noreen Bryan (noreen1945@yahoo.com); Melanie Zaletsky (melanie-zaletsky@stanfordalumni.org)
Subject: Zoning Text Amendment TXT2016-244 - West End Citizen's Association (WECA)

Importance: High

Planning Commissioners,

I am writing in regard to Zoning Text Amendment TXT2016-244 on behalf of the West End Citizen's Association, as the association's president. We have a number of significant concerns about what has been proposed, especially in regard to what could be installed in public rights-of-way in residential neighborhoods.

We looked at this proposed text amendment from the perspective of "what's the worst that could happen?" if it were adopted. As you appreciate, what the applicant for this text amendment says they would or would not do is irrelevant. The text amendment opens up possibilities that any telecom provider in the future could decide to push to the limit.

As such, here are our concerns, along with suggested modifications to address some of those concerns:

1. Antennas could be as large as 2' X 4.5'. For aesthetic reasons, this is too large if installed in front of someone's home. Even 2' X 3' is arguably too large for a residential neighborhood. What is the smallest size for these antennas that is currently being deployed anywhere? And, what is their maximum depth (in addition to height and width)? There should be a depth limit as well.
2. The Board of Appeals can grant a size waiver with no limit on maximum size. There should be a specific size limit. And, there are no criteria for the Board of Appeals to use to determine whether or not to grant a requested waiver, or for how much of a size increase. Without objective criteria, the Board of Appeals would have no legally defensible basis for not granting any/all size waivers that are requested.
3. Antennas could be within 15 feet of ground level. For aesthetic reasons, this is too low for a residential neighborhood. They should be at least 25 feet off the ground, if not 30 feet.
4. The maximum size of equipment enclosures would be up to 36 square feet horizontally and up to 5 feet tall. This could mean a 6' X 6' enclosure that is 5' high. That's nearly the size of a Smart Car. That's far too large to be directly in front of someone's house. You could also end up with a long, rectangular enclosure that is 18' long, 2' wide and 5' high. Imagine that in your front yard. There should be a maximum width, a maximum depth, and a maximum height. To resolve these concerns, for ground-installed equipment enclosures, how about size limits of 2 feet wide, 2 feet deep and 3 feet high? What is the smallest size ground-installed equipment enclosure that is currently being deployed anywhere?
5. Equipment enclosures could be mounted on poles and the maximum size would be the same as if they were on the ground (36 square feet horizontally and 5 feet tall). So, that would be 180 cubic feet of volume – stuck up in the air on the side of a pole. That would be visually hideous. The maximum size of what could be mounted on a pole should be significantly less than what could be installed on the ground. And, the equipment enclosures should be shaped so they're as flush to the pole as possible, so they don't literally stick out like a sore thumb. How about a maximum volume for pole-mounted equipment enclosures of 3 cubic feet plus the requirement that they cannot protrude from the side of the pole by more than 1 foot? What is the smallest size, most flush to the pole, pole-mounted equipment enclosure that is currently being deployed anywhere?
6. New poles would be allowed in residential neighborhoods that have underground utilities (so, no existing poles to mount antennas or equipment enclosures on). City staff indicate these new poles could be as high as the height limit of the residential neighborhood. That would be 35 feet in single family residential zones

and up to 75 in residential medium density zones. That's far too tall. How about a height limit of 25 or 30 feet on any/all new poles?

7. There would be no limit to the number of antennas, equipment enclosures or new poles in the same proximity. Any home owner could theoretically end up with an infinite number of each of these in the public right-of-way directly in front of their property. There needs to be an explicit and strict proximity limit, designed to ensure that a) any such equipment is spread out evenly over a wide area, and, more critically, b) any one property isn't visually impacted by more than one of each type of equipment. So, how about, in residential neighborhoods, no more than 1 antenna or 1 equipment enclosure within any 300 foot radius, and no more than 1 new pole within any 1,000 foot radius?
8. There would be no requirement that antennas, equipment enclosures or poles that are no longer in use be removed. And, the City government would have no means to be aware of or track this. These issues should be addressed, otherwise there is the very real risk of outdated, unused equipment left to linger indefinitely.
9. *Most concerning for us, telecom providers would be able to install antennas, equipment enclosures and, in some case, new poles in public rights-of-way in residential neighborhoods by right.* Residents would have no input on where any new antennas, equipment enclosures or poles would be located. There would be no public process. *Most fundamentally, residential neighborhoods should be a location of last resort for this type of equipment.*

   On this last point, we have shared with City staff, based on only a few minutes of cursory research, how other jurisdictions (e.g. Portland, OR) have apparently adopted a more assertive and participatory regulatory approach, to include: a) a strict tier system whereby major arteries must be considered first and residential streets last for cellular communications equipment (*with the burden on a telecom provider to prove that they need to put equipment in the right-of-way of a lower-tier street rather than any nearby higher-tier streets*), and b) a public process in which residents provide input and feedback on any proposed location before any decision is made.

Obviously, there is a steadily growing demand for cellular bandwidth for telecom companies and their customers. The question is how to balance providing that with minimizing potential negative impacts on home owners and residents. The negative impacts of the proposed text amendment could be significant. Verizon's proposed text amendment does everything to give telecom providers carte blanche to basically do whatever they'd like and does nothing to protect home owners' and residents' interests.

One final thought: The City government needs to be proactive on this. We respectfully request that before making a recommendation on this to the Mayor and Council, you ask staff to systematically research/identify best practices for regulating small cell equipment – *that are premised on strongly protecting residents' interests and giving residents a voice in the location of equipment in residential neighborhoods* – that the City might want to proactively adopt, rather than reacting to proposed text amendments, such as this one, that are crafted to maximize telecom providers' interests.

Thank you for your consideration.

Larry Giammo

PS – Please add this email to the public record on this matter. Nadia Azumi, WECA chair on this issue, plans to speak on this application at the meeting on Wed, Jun 22. She will be speaking on behalf of WECA. Thank you.

Larry Giammo
President, West End Citizen's Association (WECA)
larry@larrygiammo.com
301-213-5678

Figure 4: Large DAS Antenna for Multiple Frequency Bands

As with conventional cell towers, we have seen individual DAS antenna locations become crowded with equipment as multiple wireless carriers deploy their own DAS antennas on the same well-situated poles.

In our experience, DAS installations also typically replace or expand the utility pole and add cabinets on the pole below the antennas. Fiber-optic cable attached to the utility poles connects the nodes back to the headend.

In underground areas, we have seen surface-mounted cabinets and underground vaults used instead of pole-mounted cabinets. Sometimes node equipment is concealed in stealth structures such as a fake rock. In those installations, the fiber-optic cable is installed underground.

Small Cell Technology

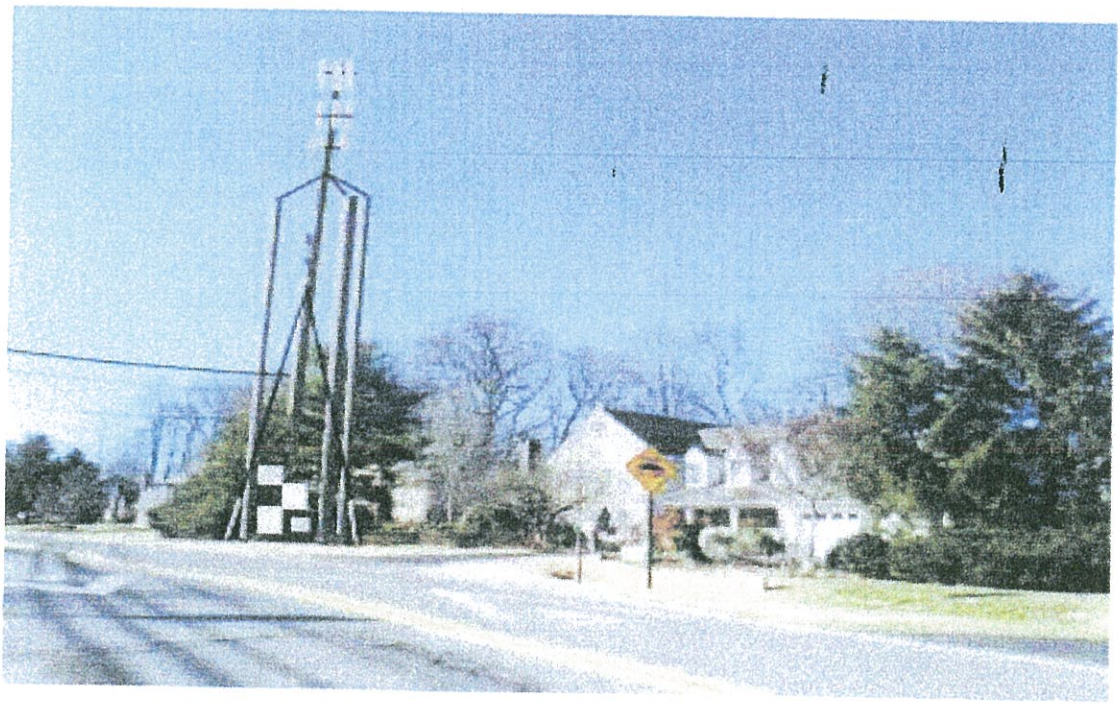
Small cell (also called microcell or picocell) is another new technology that wireless providers are using to add or improve service. Relative to DAS, small cells are even earlier in their

Attachment B

Figure 10: Potential Impact of Uniform Rule, Case 5 – Residential Neighborhood

It is useful to consider the impact of adding 20 feet to ascertain the impact of this type of modification on the structure. We provide in Figure 11 a simulation of adding antennas and the required reinforcement structures and cabinets to the pole in Figure 10. It is clear that a structure that is barely acceptable in this residential setting becomes outrageously large, because in this setting 20 feet is not a minor modification.

Figure 11: Simulated Addition of Antennas and Reinforcing Structure to Case 5 – Residential Neighborhood



Deane Mellander

From: Andrew Gunning
Sent: Wednesday, June 22, 2016 12:37 PM
To: Deane Mellander
Subject: FW: Proposed "small cell" zoning change
Attachments: 20160622_085606-1.jpg

For the record.

From: Laura Rhodes [mailto:LKR@lkrhodeslaw.com]
Sent: Wednesday, June 22, 2016 9:06 AM
To: Planning Commission <Planning.Commission@rockvillemd.gov>
Subject: Proposed "small cell" zoning change

To The Planning Board -
I urge you to minimize any leeway in the additions of these mini-towers to our neighborhoods. Many are extremely unsightly and will harm the "green" feel of the area.

I've attached a photo of the view out my 1st floor picture window on Harrington. Plenty unsightly already, wouldn't you say? Twelve wires (at least) coming and going, in addition to the boxes, tubes and old milk can (?!) attached.

Thank you,
Laura Kelsey Rhodes

LAURA KELSEY RHODES, LLC
Sent from my mobile phone.

Deane Mellander

From: Andrew Gunning
Sent: Monday, June 27, 2016 8:44 AM
To: Deane Mellander
Subject: FW: Wireless Communications Zoning Ordinance

For the record.

From: Michael Higgs [mailto:mightyterp@gmail.com]
Sent: Saturday, June 25, 2016 8:42 AM
To: Planning Commission <Planning.Commission@rockvillemd.gov>
Cc: hungerfordcivic@yahoogroups.com
Subject: Wireless Communications Zoning Ordinance

Greetings, my name is Michael Higgs, and for 18+ years I practiced law before the Federal Communications Commission. I have represented dozens of state and municipal governments in matters concerning wireless telecom siting and zoning. I am also a long-time resident of the city of Rockville, and I have two children in elementary school.

Wireless communications have progressed far beyond a "luxury" in today's society; it has become an economic necessity. Ubiquitous indoor wireless coverage provides innumerable societal benefits that extend far beyond what some consider to be detrimental to the "aesthetics" of their neighborhood. Many studies have concluded that robust wireless coverage increases property values as the hyper-connected millennial generation become homeowners themselves. In my experience, long-time residents might take notice of new wireless infrastructure placements, but prospective homebuyers and renters almost never notice them.

Much of the opposition to these new proposed zoning regulations stem from veiled concerns over negative health effects. I caution the City that under Section 337(c) of the Communications Act, it is unlawful for any municipality to consider potential health effects of any wireless infrastructure application, as that remains the purview of the federal government. Additionally, no municipality may act in such a manner as to prohibit the provision of personal wireless services. Given the shrinking size of cells in today's network architecture (promoting the efficient reuse of scarce radio spectrum) and reduced power of these cells as they are placed closer to the ground and the receivers, prohibiting new deployments in residential areas will effectively prohibit the provision of personal wireless services to some residents.

I urge the City of Rockville to work with the carriers to craft common sense zoning regulations that promote the provision of robust wireless telecommunications coverage in our neighborhoods. We anchor the "270 Technology Corridor"; we should not erect artificial barriers to progress based on bad science or overwrought fears of small antennas causing neighborhood blight.

Very truly yours,

Michael Higgs, Esq.

Deane Mellander

From: Andrew Gunning
Sent: Monday, June 27, 2016 8:46 AM
To: Deane Mellander
Subject: FW: small cell antennas

For the record.

From: andrewkass@comcast.net [mailto:andrewkass@comcast.net]
Sent: Sunday, June 26, 2016 1:52 PM
To: Planning Commission <Planning.Commission@rockvillemd.gov>
Subject: small cell antennas

Dear Planning Commission,

My name is Andrew Kass and I live at 816 Cabin John Parkway (20852).

I am writing to express my concern over the carte blanche about to be given to the telecom industry to place small cell antennas within public rights of way.

While I understand the growing demand for wireless bandwith, we must reasonably restrict the private corporations' ability to do as they please and gain profit off of what is public space. Please consider these recommendations before "giving away the farm" to private companies:

- A strict tier system whereby major arteries must be considered first and residential streets last for cellular communications equipment (with the burden on a telecom provider to prove that they need to use a lower-tier street),
- A public process in which residents are able to provide input and feedback on any proposed location before any decision is made; and
- A reasonable monthly fee to be paid to the City of Rockville for placement of each antenna placed within the public right-of-way.

Please do not sell out our citizens without giving thoughtful consideration to and placing reasonable restrictions upon the private entities that will be benefiting most from this arrangement. Thank you for your time and consideration.

Andrew Kass

Deane Mellander

From: Andrew Gunning
Sent: Monday, June 27, 2016 8:45 AM
To: Deane Mellander
Subject: FW: [hungerfordcivic] Wireless Communications Zoning Ordinance

For the record.

From: andrewkass@comcast.net [mailto:andrewkass@comcast.net]
Sent: Saturday, June 25, 2016 6:41 PM
To: hungerfordcivic@yahoogroups.com
Cc: Planning Commission <Planning.Commission@rockvillemd.gov>
Subject: Re: [hungerfordcivic] Wireless Communications Zoning Ordinance

I understand the law regarding consideration of the potential health effects of wireless infrastructure implementation, but it is a little premature to paint the concerns people have as based on "bad science". It is a relatively new technology, so the long-term effects are unknown.

Also, the fact that the telecom industry got a law passed that prevents municipalities from considering the health effects of their technology should raise an eyebrow.

Finally, let's not forget that there was a time in this country when concerns over cigarette smoking were brushed aside and materials such as lead and asbestos were allowed to be used in household products because the science proving their hazardous nature was labeled "dubious" by the industries that profited from the production and sales.

So, let's not jump the gun and be so sure of what we do or don't know at this point.

From: "Michael Higgs mightyterp@gmail.com [hungerfordcivic]" <hungerfordcivic@yahoogroups.com>
To: "Planning Commission" <Planning.Commission@rockvillemd.gov>
Cc: hungerfordcivic@yahoogroups.com
Sent: Saturday, June 25, 2016 8:41:37 AM
Subject: [hungerfordcivic] Wireless Communications Zoning Ordinance

Greetings, my name is Michael Higgs, and for 18+ years I practiced law before the Federal Communications Commission. I have represented dozens of state and municipal governments in matters concerning wireless telecom siting and zoning. I am also a long-time resident of the city of Rockville, and I have two children in elementary school.

Wireless communications have progressed far beyond a "luxury" in today's society; it has become an economic necessity. Ubiquitous indoor wireless coverage provides innumerable societal benefits that extend far beyond what some consider to be detrimental to the "aesthetics" of their neighborhood. Many studies have concluded that robust wireless coverage increases property values as the hyper-

connected millennial generation become homeowners themselves. In my experience, long-time residents might take notice of new wireless infrastructure placements, but prospective homebuyers and renters almost never notice them.

Much of the opposition to these new proposed zoning regulations stem from veiled concerns over negative health effects. I caution the City that under Section 337(c) of the Communications Act, it is unlawful for any municipality to consider potential health effects of any wireless infrastructure application, as that remains the purview of the federal government. Additionally, no municipality may act in such a manner as to prohibit the provision of personal wireless services. Given the shrinking size of cells in today's network architecture (promoting the efficient reuse of scarce radio spectrum) and reduced power of these cells as they are placed closer to the ground and the receivers, prohibiting new deployments in residential areas will effectively prohibit the provision of personal wireless services to some residents.

I urge the City of Rockville to work with the carriers to craft common sense zoning regulations that promote the provision of robust wireless telecommunications coverage in our neighborhoods. We anchor the "270 Technology Corridor"; we should not erect artificial barriers to progress based on bad science or overwrought fears of small antennas causing neighborhood blight.

Very truly yours,

Michael Higgs, Esq.

Posted by: Michael Higgs <mightyterp@gmail.com>

Reply via web post • Reply to sender • Reply to group • Start a New Topic • Messages in this topic (1)

Have you tried the highest rated email app?
With 4.5 stars in iTunes, the Yahoo Mail app is the highest rated email app on the market. What are you waiting for? Now you can access all your inboxes (Gmail, Outlook, AOL and more) in one place. Never delete an email again with 1000GB of free cloud storage.

Facebook Group: https://www.facebook.com/groups/HungerfordCivic/
Yahoo! Group: https://groups.yahoo.com/hungerfordcivic
Website: http://www.hungerford.us/
VISIT YOUR GROUP

YAHOO! GROUPS
• Privacy • Unsubscribe • Terms of Use

Deane Mellander

From: Andrew Gunning
Sent: Monday, June 27, 2016 8:46 AM
To: Deane Mellander
Subject: FW: [hungerfordcivic] Wireless Communications Zoning Ordinance

For the record.

From: David Poland [mailto:polanddavid@gmail.com]
Sent: Saturday, June 25, 2016 7:12 PM
To: hungerfordcivic@yahoogroups.com
Cc: Planning Commission <Planning.Commission@rockvillemd.gov>
Subject: Re: [hungerfordcivic] Wireless Communications Zoning Ordinance

Andrew's position sounds perfectly rationale. Why should public space be provided free when it cost citizens money to develop that space and make it accessible (ie, streets). Use and benefits of public space by the private sector should be justly compensated. Eyesores are another issue (decrease in a property's value due to an eyesore). Dave Poland, 818 Bowie Rd.

On Jun 25, 2016 6:41 PM, "andrewkass@comcast.net [hungerfordcivic]" <hungerfordcivic@yahoogroups.com> wrote:

I understand the law regarding consideration of the potential health effects of wireless infrastructure implementation, but it is a little premature to paint the concerns people have as based on "bad science". It is a relatively new technology, so the long-term effects are unknown.

Also, the fact that the telecom industry got a law passed that prevents municipalities from considering the health effects of their technology should raise an eyebrow.

Finally, let's not forget that there was a time in this country when concerns over cigarette smoking were brushed aside and materials such as lead and asbestos were allowed to be used in household products because the science proving their hazardous nature was labeled "dubious" by the industries that profited from the production and sales.

So, let's not jump the gun and be so sure of what we do or don't know at this point.

From: "Michael Higgs mightyterp@gmail.com [hungerfordcivic]" <hungerfordcivic@yahoogroups.com>
To: "Planning Commission" <Planning.Commission@rockvillemd.gov>
Cc: hungerfordcivic@yahoogroups.com
Sent: Saturday, June 25, 2016 8:41:37 AM
Subject: [hungerfordcivic] Wireless Communications Zoning Ordinance

Deane Mellander

From: Andrew Gunning
Sent: Monday, June 27, 2016 8:46 AM
To: Deane Mellander
Subject: FW: Proposal to add cell towers

For the record.

-----Original Message-----
From: Caren Ginsberg [mailto:ginsbergc@yahoo.com]
Sent: Sunday, June 26, 2016 4:45 PM
To: Planning Commission <Planning.Commission@rockvillemd.gov>
Subject: Proposal to add cell towers

To the planning commission,
I am against the proposal to add cell tower infrastructure particularly in residential neighborhoods. There is no demonstrated need in my neighborhood for such a tower. I am concerned about the esthetics of the neighborhood, the effects of towers in the environment, and health over the long term. I find that arguments by others that we won't notice a tower in the long run, it will increase our property values, and that we are standing in the way of progress to be patronizing, and arguments of people who stand to make money from the towers at the expense of my right to enjoy my neighborhood. These arguments are mere speculation because we don't know what will happen. My enjoyment of my neighborhood and protection against unknown effects of cell towers and whatever they generate are worth a lot more to me than a new tower.
Thank you for your consideration.
Sincerely,
Caren Ginsberg
72 Carter Rd
Rockville

Sent from my iPhone